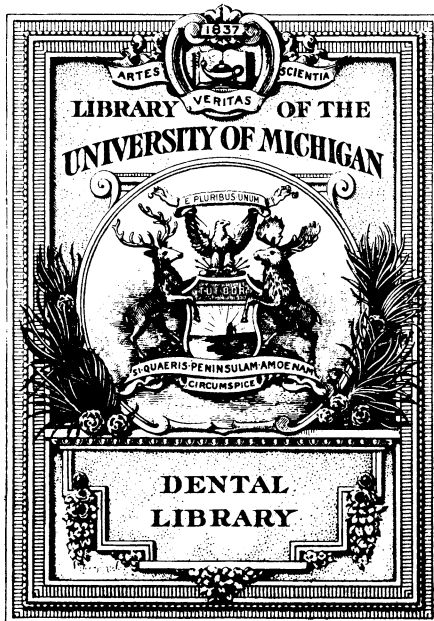


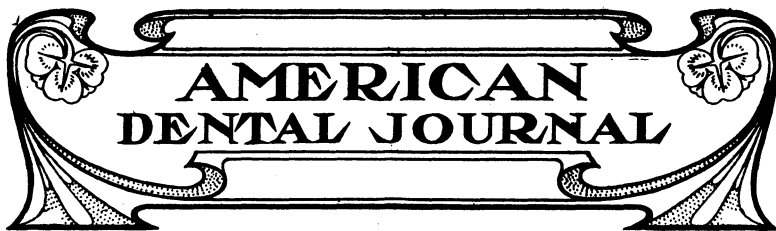
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Progressive Course of Practical Instruction

ORTHODONTIA.

BY J. N. McDOWELL, D. D. S., PROFESSOR OF ORTHODONTIA, COLLEGE OF DENTISTRY, UNIVERSITY OF ILLINOIS.

CHAPTER VI.

ETIOLOGY

In considering the Etiology or causes, only a brief outline of the most important phrase of the subject is considered which may be sufficient advice to aid in checking conditions that may eventually result in permanent malocclusion or eliminating conditions that have been established.

Considerable has been written upon the hereditary side of the cause of the anomalies of the teeth, Dr. Talbot devoting one entire work to this subject. This is a work well worth reading for those that desire to interest themselves farther in the etiology phase. The causes that are operative in producing malocclusion are divided into hereditary and acquired. According to the laws of transmission; we may expect in some cases to find the same condition in the child that existed in the parents or ancestors, such as missing laterals or supernumerary teeth. But to overcome hereditary traits does not lie within the power of the dental profession, while to some extent the acquired causes do, for it is possible to check the effect of injudicious extraction, eliminate mouth breathing, finger sucking, restore decayed teeth, etc. Some of the causes which are most prolific in producing malposition of the teeth may be considered as:

Early Extraction of the Temporary Teeth. If too many of the temporary teeth are removed at a sufficiently early time in life to delay the proper development of the alveolar process, malposition of the permanent teeth may be the result from insufficient space for eruption (as in A. Fig. 1). Here the bicuspid approximate the laterals.

Too Long Retention of the Temporary Teeth. In those cases where nature becomes obstinate and refuses to remove one, two or more of the temporary teeth at the proper time, the harmonious position of the arches is modified, and if the permanent tooth is not

retained beneath the temporary it usually forces itself up inside or outside the line of the arch beside the temporary tooth. B, Fig. 1, shows the retention of a temporary lateral and central forcing the permanent teeth inside the line of arch.

Supernumerary Teeth. These usually make their appearance with the eruption of the permanent teeth, distorting the harmony of the



Fig. 1

arches by overdeveloping one arch and rotating and forcing the teeth from the alignment. C, Fig. 1, shows a case where the centrals have been separated one-fourth of an inch by two supernumerary teeth.

Malformed Permanent Teeth, although comparatively rare, when they do make their appearance, are the most evil condition to contend with, on account of the fact that if confined to the anterior teeth, sacrifice of the tooth only aggravates the case.

Extraction of Permanent Teeth. Injudiciously to force the eruption of the other teeth or from the cause of decay is a practice that the profession cannot govern and depends entirely upon the judgment and conscience of the individual. That there are cases at a certain time that require extraction to harmonize the arches and save the facial appearance is not disputed, but the indiscriminate extraction of the permanent molars is an everlasting cause for regret. In the author's opinion, if it becomes necessary to extract a tooth, a bicuspid should be sacrificed. Molars are used for mastication and the stress of mastication is greatest at that point. On extraction of a molar tooth the lack of support and the force of mastication at once causes migration of the teeth, in that vicinity the distal migrating forward, and the mesial migrating backward. Nature intended that each arch should contain only so many teeth. Any variation from this number will cause inharmonious relation of

the arches, and malocclusion of the teeth. A, B, and C, Fig. 2, show the result of the extraction of the permanent teeth.

Disuse may come from extractor or an inharmonious relation of

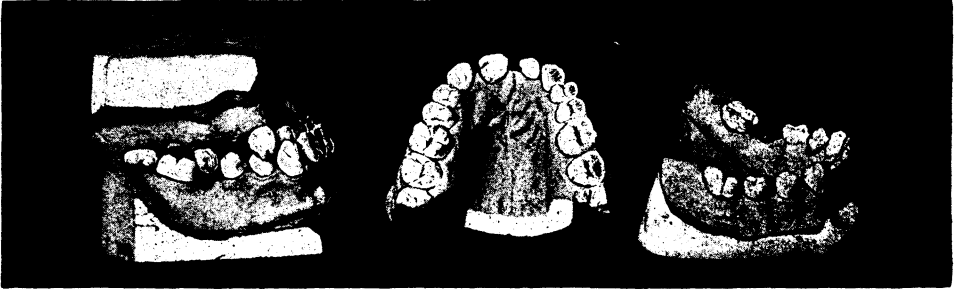


Fig. II

the arches. A tooth that takes no part in stress of mastication soon elongates and nature seems to be trying to eliminate it as it would a foreign substance. A, Fig. 2, clearly illustrates the results of disuse.



Fig. III

Decayed Teeth. Teeth that are badly impaired as the result of caries soon cause a change in the position of adjoining teeth. A tooth soon laps over in the cavity of a diseased tooth and thus causes a change in the position of the teeth in that vicinity, both in the upper and lower arches.

Improper Breathing may be induced by enlarged tonsils and

growths in the nose. Normal respiration should be by the way of the nasal passage. Any interference by growths in the nasal passage or overdeveloped adjacent tissues tends to change the breathing passage from the nose to the mouth. Growths in and about the mouth and nose are pathological conditions and promote disease which naturally interfere with the proper development of the bony and soft tissues of the mouth, nose and adjacent parts, interfering with the proper development of the arches, which is characterized



Fig. 4

by open mouths, short lips, receding chin and protrusion of the anterior teeth (Fig. 3).

Abnormal Frenum Labii. The labii sometimes may be overdeveloped, which may assist in causing separation of the upper central incisors to take place. (A, Fig. 4.)

Overdeveloped Tongue. When the teeth are found to be separated between the centrals and laterals in both the upper and lower arch, if not the result of disease of the gums, usually comes from an excessively hypertrophied tongue. B, Fig. 4, shows separation of the teeth from this condition.

Tongue, Lip or Finger Sucking may in some cases cause not only a change in the position of the teeth, but the alveolus as well. C, Fig. 4, shows the result of thumb sucking.

Cleft Palate and Hare Lip. While this is a congenital condition, it leaves the arches in a most inharmonious relationship. These two conditions are limited to the upper arch. Usually at the place of the cleft in the process one or two of the teeth will be found missing or they may be destroyed by the operation. Fig. 5 shows two cleft palate cases operated upon and the result upon the teeth and the arches.

OPERATIVE DENTISTRY

By R. B. Tuller, D. D. S.,

Clinical Professor of Operative Dentistry, Chicago College of Dental Surgery.

CHAPTER XXVII.

An entire volume might be devoted to the treatment of the varied conditions found in pulpless teeth. The previous chapter covered some phases. We speak of teeth as pulpless, often, when the pulp is dead. It is pulpless so far as vitality is concerned, but often upon opening into the chamber we find the pulp intact as to volume, but slowly undergoing putrefactive changes. When a pulp dies from some abrupt shock or from apical strangulation (arrest of circulation through inflammatory stricture at the apical foramen), it takes at least eight days of mortuary changes to separate the dead from the living tissue at the apex. Or the same in case it has been devitalized by the dentist. When nature has done its work of separating the dead from the living, other changes have occurred which, while not yet really putrescent, are steps in that direction, that makes the pulp ripe, so to speak, for removal. Its integrity in strength has not been much weakened while all attachment has let go and we find it in condition to slide out of chamber and roots complete to the last vestige, with very little effort. It probably has been the experience of nearly all operators of several years of practice to remove such pulps from the chamber and the one, two or three roots all complete and intact. It has a slimy appearance and the odor indicates that putrescence has set in, and, while we must treat the roots for sepsis it is gratifying to have the contents come away so easily and so completely. We feel that it is all out, and that only a proper cleansing and sterilizing of the roots, with diffusive medicaments, such as oil of cloves, for perhaps 24 or 48 hours, is only necessary to be enabled to fill. It is the practice of some good operators in devitalizing pulps to leave them without medication for two weeks to allow this "ripening" process to occur. It has its dangers; for only a little beyond this *ripe* stage comes, often, putrescence so virulent and poisonous that nothing will prevent the disturbance that results in an abscess; and how often our patients neglect their part, and fail to come back—at the time set, at least. It is true that some dead pulps rot and disintegrate without creating immediately and abscessed condition—or even soreness or tenderness at end of root; but these symptoms may come in full, and perhaps accumulated force, at almost any time. Such teeth are very aptly

called, among dentists, sleeping volcanoes, and in many instances convincing the possessor very forcibly. Firing up through some exposure to weather changes, and when the system and resistance is weakened, and perchance when a good dentist cannot be reached promptly, blood poisoning and death even may follow. Such dire results in a great many instances are on record. Every patient with a tooth menacing in that direction should be advised without undue alarm, but impressed with the importance of not neglecting it. Such a tooth, too, is often the cause of reflex disturbances, and particularly near or remote neuralgic conditions, besides producing a foul breath and a poisoned condition of the fluids of the mouth which go more or less into the stomach. Many a strange disturbance might be traced to an open and foul pulpless tooth.

Certain it is in a great many carefully noted and recorded cases, a marked improvement in general health has followed immediately upon having the teeth properly cared for. The persistent neuralgia of years has in many cases been cured by correct diagnosis and treatment of the teeth.

Now, when the pulp of a tooth has been devitalized for any reason, it is the practice of many dentists to treat it with medications that will forestall or retard putrefactive conditions and leave it, say, a matter of two weeks, until nature has brought about the separation of dead tissue from living. In addition to this a tanning process is frequently added to serve to tan and toughen up the pulp, rather than allow it to begin to putrefy and soften. The proper way to proceed when tanning is desired, is to have a free opening into the pulp chamber and dehydrate with absolute alcohol as thoroughly as possible before using the tanning solution. That is, saturate the cavity with the alcohol (which can be made absolute by the introduction into the bottle of small quantity of gelatine chips) and then absorb with cotton, repeating the operation several times. Alcohol has an affinity for a certain amount of water and consequently sucks it out of the pulp, with the result that when the tanning solution is introduced the pulp will take up more of it than if not dehydrated, and in consequence the tanning process is more effective and complete. An effective tanning solution is made of equal parts of tannin and glycerine; but it should be remembered that a tooth may be somewhat discolored by the use of tannin, hence caution is necessary as concerns front or exposed teeth. It is seldom that tanning is of such importance in front teeth, since the removal of the pulps of those teeth is comparatively easy in most instances, while the contrary is the case with many of the

posterior teeth, making it desirable to have the pulp tough and leathery and not so likely to pull apart in efforts to remove. When the tanning process works out in an ideal way, we find pulps contracted and shriveled, and easily withdrawn from tortuous roots even, and the canals, with very little treatment in washing out, ready to fill. This process where one has his patients well in hand and can see them with little trouble almost any time, is perhaps the best way to handle devitalized pulps; but such deliberation is well-nigh impossible in many cases where the patient cannot come frequently, and the proposition often resolves itself into "now or never," and hence a crying need of shorter methods, which pressure anaesthesia fills, to some extent, benumbing the pulp so that its immediate extirpation may be accomplished without pain. The science of this method, however, has not been brought to such a status of certainty that it can be depended upon in all sorts and conditions. Still, it displaces the slow arsenical treatment in thousands of cases.

When the time comes to use a broach for removal of a dead or anaesthetized pulp, it will generally be found easier to entangle it if it has been pretty thoroughly dehydrated. Use absolute alcohol as above described, and pulps which seem to repeatedly slip off the broach when parts are wet, if at all entangled, will come away at once, in many cases, if not all.

Every dentist who has had any considerable practice has no doubt opened into dead pulps where he found nothing at all but an *old*, bad smell, and a little dessicated debris, the remains of a pulp that had disintegrated, apparently, without much if any disturbance at all. We describe this odor as old, because it is different from the usual putrescent smell and simply impresses one as old,—long bottled up. It is the opinion of the writer that somewhere in the progress of the trouble the apical foramen becomes in some way clogged or sealed by some unaffected substance, possibly calcic salts, that shuts off all communication between the contents of the tooth and the tissues beyond; and, imprisoned in a bony cell the putrefactive action goes on in a different way from the usual course. The treatment of such canals must be delicate and cautious, and must be well ventilated and washed with antiseptics before an effort is made to get through the apical end. In fact after thorough ventilation, aided by use of chip blower, some such antiseptic as the oil cloves, or better yet the combination of tri-cresol and formalin, equal parts, should be sealed in for several days—at least, for 12 or 15 hours.

Another class of pulpless teeth are those which are open to the fluids of the mouth. As has before been emphasized, every precau-

tion should be taken, to not plunge any instrument, explorer or bur into such chamber in a way to force, or take any chance of forcing, the poisonous contents through the apical foramen. Opening into the pulp chamber should be carefully done and then, while flooded with alcohol or some antiseptic the contents, of the chamber (not roots), should be gently dislodged with very small, sharp pointed instruments. In some instances the orifice of the root canals may be cleaned in the same way, but nothing that might act as a piston should be thrust into the roots, until thorough antiseptis is brought about, as heretofore described.

Calcic deposits in one form or another so often interfere with the proper treatment of pulpless teeth that some procedure is necessary for its removal. The orifice into root canals is often obstructed by a deposit which seems to ordinary observation to have no opening, but which certainly has, though perhaps very minute. In some instances when the chamber has been well cleaned, the location of the root orifice may be readily determined and may be mechanically relieved of the deposits in a few moments, sometimes with excavators, sometimes by the use of canal drills and burs of bud shape. Often the use of dilute sulphuric acid must be brought into requisition with some of the many designed canal cleaners. The location of canals are sometimes so obscured that one can only calculate by the formation of the tooth and the direction the roots take, observed externally, about where to explore for the root opening. The texture of secondary dentine is such usually, that it is more readily attacked by the acid than is the dentine itself, and often the opening to roots that were hidden to begin with, may be discovered and opened into a few moments.

After the work of opening has been accomplished by the use of acid, it is necessary to counteract the effect of any that may be left, and hence, a solution of bi-carbonate of soda should be used, or dilute aqua ammonia; after which washing out and treating antiseptically, as heretofore described, may be proceeded with.

In all this work of treating pulpless teeth (after the first opening and washing out with syringe) should be done with tooth absolutely and surely isolated from the fluids of the mouth, and from first to last nothing should be allowed to get into the tooth that is not put there by the dentist.

We are, however, called upon, sometimes, to treat roots which it is quite impossible to get a rubber dam over and we are compelled to resort to other measures to keep the root dry; and even in some instances to do best we can with the root liable to get moist during the operation. (To be continued.)

PROSTHETIC DENTISTRY

By **B. J. Cigrand, B. S., M. S., D. D. S.**

(Professor of Prosthetic Dentistry and Technics, College of Dentistry,
University of Illinois.)

Possibly the most useful invention recorded in the annals of dental art or science is that of the individual crown, the basis of the successful bridge denture. Few themes have claimed the consideration of the profession with such constancy, and I dare say, few have a more enduring prospect.

The evolution of the dental crown is deserving of close study and its frequency as a subject in the literature of the profession is a sufficient criterion of its importance. This intelligent congregation of dentists, I am happy to say, is familiar with the varied evolution of the dental crown, and thus an extensive explanation of the numberless improvements in crowns, need not solicit further consideration. Privilege me however to remind you of the classification of crowns in order that you may more fully comprehend the purpose of this paper.

The great variety of crowns which are at our command, may be divided into three classes: first, those of porcelain; second, those of metal; third, those of both porcelain and metal. These three classes are again subdivided into three groups, namely, those which band the root; next those which simply rest on the naked root and depend on a post for anchorage; and lastly those which are a combination of the two former.

Of the scores of methods employed in crowning roots, none can be advocated as the universal or best, each has an undisputed territory and merit, and all have faults; and it remains for the operator to decide which of the methods or systems is most preferable, from the point of durability, appearance, usefulness, and adaptation.

The proper construction of an aesthetic and practical crown requires much scientific information, great mechanical dexterity, thorough knowledge of proportions, a fair understanding of harmony, and a sound judgment; and crown work affords a wide scope for versatility of talent and offers the widest avenue possible to the inventive genius. The varied and complex cases presented for treatment or restoration, frequently suggest to the prosthesis, novel contrivances and methods of construction and application.

Do not infer from the proem of this paper that I am about to introduce to you a faultless crown, for I would remind you that Pope has wisely said:

“Whoever thinks a faultless piece to see,
Thinks what ne'er was ne'er is nor ne'er shall be.”

I am fully conscious of existing defects in the crown, yet I am confident you will recognize in it features worthy of approbation.

The crown which has of late attracted attention is the bicuspid with porcelain facings; no less than fifty different methods have been advanced to produce a bicuspid crown free from the display of gold or platinum, and yet be consistent with the laws of harmony, both as to the color and shape. The all-gold, or telescope crowns have in these recent years been relegated to the “bye-gone-days,” and in their stead we find the more natural substitute, the porcelain. Our patients no longer desire to disclose to an observing public, that their teeth have been repaired; they dislike the mammoth gold filling or the attractive gold crown; they solicit service which can render dental results approximate to nature; and our patrons have come to believe that: “’Tis true art to hide art.”

No substitute has a brighter future than porcelain, for it is a material in which not only the beauty of expression delights the eye and gives evidence of the highest aesthetic cultivation, but links to that beauty, the additional charm of usefulness.

The crown which I submit for your consideration, is a combination crown, porcelain and metal, and is anchored by means of a post. In construction it is simple and answers all requirements of a substitute. My experience has led me to know that matters recommendable to the profession should have stood the test of several years before presenting them to a representative body, such as the Michigan State Dental Society; but I have used the crown for several years and assure you I feel that the crown is meritorious in many respects. It embodies the requisites of an ideal crown, namely: durability, appearance, adaptation, usefulness.

The class of roots upon which I would advise its use are the bicuspids whose crowns are badly decayed and necessitate the devitalization of the pulp. After fashioning the roots so as to leave it prominent on the palatal surface and bevelling it toward the cervicopalatal margin as represented in Fig. 2, prepare the pulp canal as for the Logan crown. Then proceed to make a cope to properly envelop the exposed portion of the natural root and solder on the upper portion of the cope several platinum pins (taken from plain teeth), and on its lower surface a platinum post, as seen in Fig. 3; or if

desired to increase the strength of the cope and further aid in anchoring the vulcanite, a small ribbon of gold or platinum, should be soldered onto the superior surface of the cope as shown in Fig. 5.



After having polished the cope, position it on the root and select the proper sized, shaped and colored porcelain tooth (Gideon Sibley), and grind its cervical margin as in Fig. 7, this will permit it to accurately fit the inclined surface of the cope. By means of wax placed on the cope the tooth can be held in place and perfect occlusion can be attained. If at all possible remove the cope with the tooth still in position, then thoroughly wax up the inter-space between the tooth and the cope and invest the crown in the dental

flask, remove the wax and pack the space with black rubber, or maroon rubber; vulcanize the case and after giving the gold and vulcanite a polished surface, lodge the crown on the root and fasten it with oxyphosphate. This will give you a neat, servicable substitute, free from inter-spaces which might lodge foreign matter.

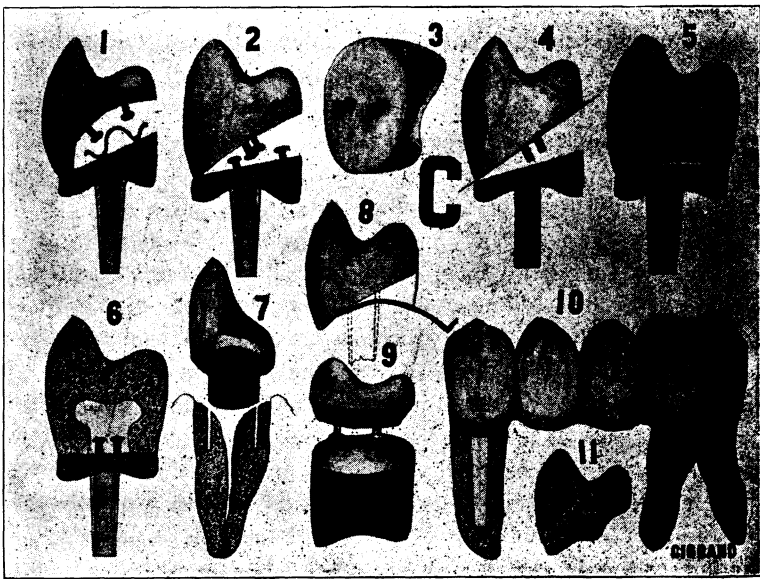
If it is desired to produce one of these crowns so that the vulcanite will be invisible on either the labial or palatal surface it can be accomplished by grinding the palatal surface of the tooth and extending the lingual surface of the cope to join with the tooth as represented in Fig. 12; or by using the Howland crown (porcelain), packing the chamber with rubber and treating it as the preceding case. The counter sunk tooth (Crescent), can also be used to good advantage in this method of crown-work as shown in Fig. 11. A crown similar in construction, yet void of vulcanite can be made by using the saddle-backed porcelain teeth (S. S. White); adapt a piece of gold 30 gauge, to the concave or saddle portion and then fashion the cope so it will perfectly fit the gold on the plate tooth. After the cope has been adjusted, remove the tooth and solder the cope; then properly polish the latter and position the porcelain tooth on the cope and clinch the pins of the tooth to the cope, thus you have a metal porcelain crown without having subjected it to the blow-pipe or furnace.

This crown can also be used in conjunction with bridge-dentures, especially where it is intended to replace the bicuspid teeth; the method for bridging is so near like that of crowning that it would be superfluous to enter into further description.

Those dentists who have a furnace for baking porcelain can employ this system for crown work and produce a very neat crown by making the cope of platinum, and instead of attaching the porcelain by means of the vulcanite, can do so by filling the inter-space with "body" and subsequent to baking the "enamel," polish the metal and a most perfect crown will result.

This chart relates to my method of effecting natural results in individual and assembled cases. In a college clinic in 1891, I gave Fig. 1, and in '95 I presented several similar ideas to the Illinois State Society. Fig. 1 shows the old saddle-back tooth mounted on a gold cope having a corrugated ribbon of gold soldered to serve as an anchor for the vulcanite which was the agent of attachment. The crown could also be made by employing solder instead of vulcanite and it could be made into a full porcelain crown by making the cope of platinum and filling the gap with porcelain. Johnson and Lund have since given me a tooth which is considerable stronger than the saddle-back, this tooth is shown in Figs. 2, 3 and 4. They

can be had for either vulcanite attachment or gold attachment, as suggested in Figs. 2 and 4. Fig. 5 demonstrates how I employ the Logan crown in assembled cases. I first drill two holes on the side intended for attachment and place into these holes platinum pins having heads. The pin is placed with the head into the Logan and then porcelain body is added around the pins and the Logan placed in the dental furnace. When this is done I fit a heavy piece of gold to the lateral side of the Logan as represented in Fig. 5, and to this patch of metal I solder the intended intermediate crown. Fig. 6 indicates how the Howland porcelain crown be fastened to a gold ferule and may be attached as Fig. 1. Fig. 7 illustrates the method I employ in anchoring a Richmond when I hope to use the latter in assembled work. The root as indicated is decayed below the alveolar process and a circumferential band is contra-indicated; the intra-



dental band in this case becomes a most useful appliance. The band thus made allows extensive surface for cement anchorage. A point in its favor in assembled work as the strain on the pillar crown is great. Fig. 8 shows how the Logan can be attached to gold base. Fig. 9 suggests how a porcelain cusp may be set in a gold shell, for individual cases. When a case is made as in diagram B, Fig. 5, the patient when smiling immediately shows the brilliant gold cusp; and when laughing shows the porcelain. In Fig. 9 under consideration, the reverse is true and lends aesthetic efforts to the crown. Fig. 10 illustrates an assembled case using my suggestion as regards porcelain teeth. The Logan acting as the mesial pillar, the molar as the distal pillar, and the intermediate teeth supplied by joining porcelain in Fig. 4. A sectional view of the first bicuspid intermediate crown shows the gold thick immediately under the center of the crown, at a point where there is likely to be the greatest strain.

DENTAL THERAPEUTICS

(By Geo. W. Cook, B. S., D. D. S., Chicago, Ill., Professor of Bacteriology and Pathology, University of Illinois, Professor of Oral Surgery, Dearborn Medical College.)

CHAPTER XXVI.

Thus far in the discussion of certain therapeutic principles we have dealt very largely with the pharmacological effects of certain compounds classed under the head of metals. We have thus far learned that these agents act only, or at least to a very slight degree, when they have formed a new compound by being broken up by certain agents. Thus chlorides, bichlorides, sulphates, etc., form some compound that is easily disassociated. In other words they are prepared in a way that when they come in contact with the protoplasmia of living substance they so affect the physiological function of living protoplasmia, as to change certain functional processes, either detrimentally or favorably, as the case may be, considering quantity administered and conditions under which these agents may act.

Probably one of the most interesting pharmacological and therapeutic agents that is known in the treatment of disease is that of quinine. The species of the cinchona tree, which contains the agent commonly known as quinine, is an alkaloidal derivative from the cinchona bark. It would be interesting and also very profitable if it were possible to take up the history of this agent and follow it from its early recognition down to the present time, but time and space would not permit of such a study. Therefore we will confine our remarks to the subject matter as it pertains to its direct application to certain conditions in the treatment of such pathological changes as present themselves to the dental practitioner.

The best known chemical agents from the cinchona bark are the following: Quinine, quinidine or conquinine, cinchonine and cinchonidine. There are a number of other alkaloidal derivatives, but they have no special place in connection with the subject at the present time. The cinchona alkaloids are probably derivatives of the quinoline series and are all isomeric compounds of ($C_{12} H_{22} N_2 O$). Cinchona bark contains, besides the above named compound, a number of other acids like tannic acid, and a number of neutral substances.

In the early introduction of these agents, which was about 1630 to 1640, the majority of these substances came from the southwestern part of South America, but at the present time they come from India and Java, where they are cultivated as one of the financial commodities of the country. It is a question whether the value of these agents was known to the Indians, before the Spanish entered the country and introduced them as agents of great value in medicine.

It may be said that quinine differs in its action from most all of the other important alkaloids, in that its action is general and affects the general nutrition of the protoplasmia of the body, while many of the other alkaloids may affect the nutrition, but at the same time may act upon some special tissue cells of the body. Quinine, therefore, is looked upon as a general protoplasmic poison because its action extends throughout most forms of living matter.

The action of quinine on the unicellular organisms is of a great deal more interest than any other alkaloid. Binz's investigations, with very small quantities, proved that it sometimes increased the movement of the amoeba and other infusoria; if a minute quantity was increased to the slightest degree it would cause paralysis of these organisms, and the protoplasmia would assume a granular appearance. The bacteria of putrefaction are also acted upon by quinine, but this agent does not arrest the movement of these organisms as it does the protozoa forms of life. Some investigators claim that quinine has more antiseptic power on certain forms of bacteria than does carbolic acid. It might be said, however, that this is only true with the putrefactive bacteria, for there are certain forms of pus-producing organisms that are affected by this agent only in accordance with the ability of the solution in which the organisms are living to break up the molecular compound of the quinine. The soluble substance present in putrefactive or dead animal material, seemingly, has a greater power to bring quinine in solution than does the substance in which pus cells are present. Such a condition may be said to be true of most all agents for the destruction of bacteria.

Such bacteria as produce alcoholic, lactic, and butyric fermentation may become entirely arrested when quinine is introduced into the solution, while on the other hand it interferes but little, if at all, with certain moulds, such, for instance, as the penicillium. Darwin, long

ago, showed through his tireless investigation that quinine arrested the growth of certain forms of higher plant life. Hertwig found that the reproductive power of certain forms of animal life was materially interfered with when quinine was brought in direct contact with, or even dissolved in, very minute quantities of nutrient solutions in which the organisms were living. He also found that quinine applied to the male nucleus, after it had entered the ovum of the sea-urchin egg, completely arrested the conjugation of the process for a considerable time, and if development was re-established that abnormality of the larva was extremely manifest, showing that its effects were largely due to nutritive interference.

Investigations along this line farther showed that complex organisms are affected very much in the same way as those of the lower forms. When these observations were first brought out it was thought that quinine acted only upon the nuclear substance of the cell, but later observations showed that the cytoplasmia, as well as the nucleus, was acted upon by quinine. Binz showed, when a drop of blood was examined under the microscope, that the white blood corpuscles were undergoing a constant change of form and position, very much in the same manner as that observed in the case of amoeba; but when a minute quantity of quinine salts was brought in direct contact with the blood plasma the leucocytes assumed a spherical form, becoming dark in color and granular in appearance, and finally broke up into an irregular mass of unorganized substance. These experiments when applied to the blood circulating in the tissue showed that the leucocytes were not so rapid in their movements and were not so ready to escape through the vessel walls into the tissue, especially if irritation was applied to the part.

According to the experiments above cited it seemingly would indicate that the effects of quinine on the white blood corpuscles were greater than upon any of the other tissue cells; however, one would infer from a farther discussion of the subject that the quinine affected the other tissue cells just about in the same way as it did the white corpuscles. The above-named author seems to indicate that quinine retarded the physiological activity of all protoplasmia to some extent, whether it existed in the protoplasmia of the white blood corpuscles or in the low forms of plant life.

The poisonous effects of quinine on the frog shows increased reflex irritability for a short time, which is followed by depressed

activity and finally paralysis of the spinal cord. It is said that in the mammalia the spinal cord is stimulated by very small quantities of quinine, followed by a depression, muscular weakness, sometimes tremor and convulsions; the heart is oftentimes increased in its movements, afterwards slow and weak. When quinine is administered by the stomach it has comparatively little effect upon the heart and blood pressure. It might be said in brief that quinine, at first, causes increased muscular activity, followed by depression, especially if any quantity is permitted to get into the circulation. The general nervous system seems to be remarkably tolerant to quinine when administered internally. Early observations seem to indicate that when quinine is taken internally for some time it would cause contraction and eventually atrophy of the spleen, but such observations have not been verified by any experiments.

It may be said that quinine has some action on the appetite and digestion of man, perhaps in the same way as *nux vomica*. The ordinary therapeutic doses of quinine have but little effect upon the senses, except perhaps in that pertaining to the hearing; occasionally the sight is affected. The ringing or roaring sound sometimes observed by individuals who are taking quinine, accompanied by slight deafness, are sometimes very apparent with some people when only very small doses of quinine have been taken. Contraction of the field of vision, sometimes total blindness is produced and will sometimes last for several days and weeks. Color vision is sometimes considerably interfered with. The deafness that follows after the administration of quinine is usually due to the congestion of the *membrana tympani*. Where persons are specially susceptible in this direction and quinine is continued for some considerable time, there may be a slight chronic inflammatory process set up in the auditory canal, which may produce permanent deafness.

The administration of quinine, for therapeutic purposes, has led to the observation that many people have peculiar idiosyncrasies, deafness, interferences of the sight and skin eruption; these sometimes show decided conditions, which may possibly lead to mistaken diagnosis. The general effects that quinine has on the body is one of special interest in many respects; the influence that it has on the metabolism is one of great importance, in so far as it has an influence upon all the conditions pertaining to susceptibility, predisposition and immunity to disease. Small quantities of quinine

administered has shown that it diminishes the destructive process of the nitrogenous constituents of the body. When minute quantities of quinine have been administered it has been shown that the nitrogen in the urine is for a short time increased; it diminishes the urea and uric acid, which is supposed to be due to the diminished leucocytes in the body.

While the oxidation processes of the body is but little influenced by the administration of quinine, still at the same time the nitrogen output, as has just been said, is at first increased and then gradually drops back to about the normal quantity. The experiments and observations on these points could be discussed at considerable length, and very profitably, too, if time and space would permit, suffice it to say that the phosphates and sulphates are somewhat interfered with in the body by the use of quinine, but after some little time, if the drug is continued, that metabolic change seems to adjust itself without having produced any harmful influence on the body.

The influence of quinine on the body temperature is a point that has received a great deal of study and investigation. Some authors claim that quinine has a decided influence on the reduction of abnormally high temperature, but influences the normal temperature very little, if at all. As is well known, the fever of the animal temperature was formerly supposed to be due to certain stimulation of the central nervous system, but at present this point is somewhat in dispute. Therefore the action of quinine on the central nervous system is also a question at present in dispute. It may be said that the influence quinine has on the reduction of fever is due more particularly to the action of the drug on the tissues of the body, rather than its effects on the central nervous system. If we assume the present hypothesis that the body temperature is increased by the oxidation of certain carbon compounds, the question naturally arises: Does quinine actually have any influence on the reduction of the temperature in the case of fever? As has just been said, the oxygen is not increased in the body, and carbon dioxide exhaled from the lungs remains practically the same as it did before the administration of quinine, consequently it is hard to say that quinine has any material influence on the temperature of the body. Observations show that when quinine is administered at the beginning of the rise of temperature, it may to an extent prevent the rise, but it will not materially reduce it after it has reached its maximum height.

It has been observed that thirty minutes after quinine has been administered by the mouth that it will appear in the urine. This is an indication of how rapidly it is absorbed and a portion of it excreted from the body. However, it must not be forgotten that all of it is not eliminated from the body at once, for sometimes it can be detected for several hours and even days after its administration.

As is well known, quinine is quite insoluble in water, for it has been observed that quinine sulphate requires eight hundred times its weight in water to dissolve it; the hydrochlorate of quinine requires thirty-five times its weight, while the hydrobromate requires thirty-four times its weight. A slight amount of acidity in the water materially increases the solubility of these various compounds of quinine. Consequently in the administration of quinine it is sometimes well to administer minute quantities of acid in order that the quinine will be more easily absorbed, thus getting the better effects of the drug, especially is this true when the sulphate of quinine has been administered. The question naturally arises: Why is the sulphate of quinine preferred to some of the other compounds of this drug when it is so much less soluble than that of some of the other compounds? The salts of quinine are usually administered either in the form of pills or capsules, in order that the disagreeable, bitter taste may be entirely done away with. It might be well to mention here that the hydrochlorate is sometimes considered better when it is administered to young people, and especially children. There seems to be no special reason for this, other than perhaps that it is more soluble and it does not require so much of the drug as it would in case of the administration of the sulphate.

(To be continued.)

TO HOLD CROWNS WHILE POLISHING.

Cut a pine stick to fit the crown loosely, coat it with shellac by heating both in a flame, then force it into the crown previously filled with a mix of salted plaster, and it is ready for the buff. To remove the crown heat in a flame, and with a napkin to protect the fingers, pull it from the stick. Lac on the stick prevents the wood from drinking in the water of the plaster, and when heated makes the stick easy of removal. The salt hardens the plaster immediately, and the heat generated in the buffing and that of the flame perfects it, and as a final result the plaster comes away in scales, leaving the inner surface of the crown as clean as when first made ready for the polishing process.—*Off. and Lab.*

ORIGINAL CONTRIBUTIONS

TOOTHsome TOPICS.

By R. B. Tuller.

Idio,
Idios,
Idiot;
Idiosyn—
Idiosyncrasies.

And what are yours?

Why, you're as odd as Billy's hatband.

I know, you think it is the other fellow. Maybe it is; but you've got 'em too. You can't hide 'em. You are all broke out with 'em.

Some of them stand out like that blob on the end of your nose, which is your bold and brilliant vanguard wherever you go.

When you hear some one say, "Holy smoke! look at that," you needn't look about, but just cross your eyes and they will be centered on the subject of remark.

Oh, of course, that excrecence is not an idiosyncrasy—(it's just a nasi blobus, and you can't help it), but sticking it into other people's business that don't concern you, is, and you could help that. Well, I don't know; maybe you couldn't. You haven't a bashful nature and that's not a bashful blob—though I have seen it blush now and then.

When you do get it into other people's affairs and pry around to find something to comment on unfavorably, you ought to remember that that is a very convenient place to be "handed one." Biff! You'll get it some day all O. K. One good punch (without nutmeg) would convert the blossom into a soft "peach," and I'm not sure but it would look better. Most anything would be an improvement.

Don't think I'm getting harsh and personal. No, not necessarily, for you are not the only one; you have plenty of company. There are others; but you might just take a rubber at yourself in the glass.

Yes, I know you do—too often, perhaps—but it is hard to see yourself as others see you. But you are well satisfied with yourself. Well, I should say!

Take it when you are telling one of your funny stories, you just fall all over yourself, you are so pleased with yourself. And, my! how you roar at your own jokes: “Ha-ha-ha, he-he-he, ho-ho-ho, whe-ee-oo-oo-p; huh, uh-huh,—uh-huh,—uh-huh,—uh-huh-huh.” And then you repeat the nub and break out again. Your whole face and demeanor indicate that you are mentally patting yourself on the back and saying to yourself, “Say, that was a side splitter! And I told it well. *Did* you hear them laugh?” and once more you titter in self-complacency.

Another one of your idios is that you attempt all dialects—the patois of all nationalities, Irish, German, French, Swede, Jew, “Dago,” Red Indian, Southern Negro, Hottentot, and all with the some conglomerate linguæ incognito, a cris-cross between Hebrew, harelip and hog-Latin.

Sometimes you strike a fine, rich Irish brogue, but you put it onto the Swede or the Dago; and the lisp of the Jew you give to a Paddy from Cork. This is where you are real funny and you don't know it.

When you rise, as you never fail to do in a dental meeting, you somewhere in your long prosy ramble, are hit with the idea that you can say something funny; and we all know when it is coming, for a grin brightens your funereal face, your body wriggles a little, and with a hesitancy as though you wondered whether it was best to spring it or not, you flap your wings against your trousers and the bright scintillating point is brought out. It then takes a cough or two to settle back into composure and the effect on your hearers is as profoundly impressive as a fire cracker that fizzes instead of exploding. Laugh? Why, you'd make a horse laugh. Again, this is where you are funny and don't know it. Your *effort* to be funny is where you are exceedingly funny.

Then you do love to dominate the subject of conversation and give an imitation of a man who thinks he is expounding wisdom. You butt into a party without any consideration of what may be doing, and in a loud, raucous staccato, drown out everyone else and launch a subject of your own, which ten to one is a horse race, a prize fight or baseball—things that least of all are of interest to a

bunch of intelligent dentists!! But you hold the boards all the same, and what you know about baseball, for instance, is something marvelous. It leads one to think you must be on the bleachers most of the time instead of practicing dentistry. Shame! It is a wonder you are not a professional high-salaried umpire.

But what you know about high-balls is a good deal more than baseball proper. You are an adept at catching them when they come your way. You've got an eagle eye, a strong right arm and a lively hop, but you never—hardly ever—go to bat. If you do you are more likely to strike out than to score. It is hard to get you to separate from your stannum.

You can put up the biggest bold front with the littlest capital of any many I know of; but when you get called, and called in earnest, you peter like the Irishman who had a list of the men he could lick. He read it over to Mrs. Murphy at her gate one day: "Tim Doolan, 'Bat' Burke, Jimmie Breen, Pat Larty, Mickie Murphy," "Hold!" cried Mrs. Murphy, "ye can't lick Mike!" "Sure I can," says the bluffer, not aware that Murphy was just inside. "Come here, Mike," shouts Mrs. Murphy, "here's a duffer says he can lick ye." "What's that?" says Mike, springing out, "ye can't lick me!" "I can," says the bluffer. "Not by a dom sight, ye can't," says Mike, dropping off his coat, spitting on his hands, and making a pass very much like the real thing. "Oh, well, thin," says the bold one, dodging back and drawing a pencil, "if I *can't*, thin I'll jist scratch ye off me list."

When you think you see a high-ball coming your way and miss catching it, you remind me of another Irishman who told how he missed it as follows: "Ye see, it was this way, bad luck to 'im. Oi wint into Casey's fer a match. As Oi intered Casey says, says he, 'Hillo, Dinnis! Come in. Phwat air we going to have?' and Oi had it on me tongue to say whiskey, when he says, 'rain or snow?' bad luck to 'im."

That sort of thing makes you peevis, too.

After all I think I prefer you, with your blobus and particular idios, to that other fellow who has, not a blob, but a ruta-baga—you know, a *turnup*, and who goes sniffing about at the well earned laurels of some other man who *is* something, does something, lives for something, has something; while he, the nonentity, wastes a good part of his time strutting about in "glad rags" (easy payments), a

boisterous necktie, hilarious socks and patent leathers, inhaling cigarette smoke and blowing it out through his nose; or with his weazen face cocked into an attitude of, "This world wouldn't be much without *me* in it," puffing little rings up into the air. Dear! dear! "*Me* in it!" who is *me*? Ah, sir, don't you know? He's the man behind the gun—paper gun—and the ringlets he puffs are significant of his value and importance in this world. They are smoke cyphers, with the ring rapidly vanishing. His idio comes pretty near ending in t.

Now, what's the matter with *you*? *You* needn't get touchy. I didn't say *you* were that kind. I didn't say there were any in the dental profession. I certainly did not have *you* in mind. If *you* go and suspect yourself I can't help that.

No, sir; I look upon *you* as one of the salt of the earth. Keep right on being it. Be salt in the dental profession—and pepper, too—and we'll sprinkle you in where you belong, to make things *seasonable* and right.

But say; don't overdo it. Don't be *too* much salt. Too much spoils everything. And don't get in where you don't belong. Salt in the wrong place is as bad as maple syrup over raw oysters on the half shell. Wuh!

(Toothsome Topics every month.)



A CASE OF STAPHYLORRAPHY.

(Reported by G. W. Cochran, Erie, Pa.)

F. G., male, 27 years old, a blacksmith, suffered from a complete cleft palate, which was congenital in origin. The deformity was very extensive, the fissure involving both the soft and hard palates, and extending from the uvula to the right nares. The young man had been wearing an obturator and artificial velum for the past six years, but these did not give him entire satisfaction and he consulted Dr. George W. Cochran of Erie, Pa., who advised a radical operation. To this the patient gladly gave his consent and the operation was accordingly performed by Drs. A. Z. Randall, George W. Cochran and C. B. Chichester. The method which has been so extensively and successfully employed by Dr. Truman W. Brophy of Chicago, was followed. The operation consumed over four hours and consisted in elevating the muco-periosteal membrane from the palate bones back to the alveolar ridge and then closing the aperture in the palate by bringing the tissues together with silk and silver wire sutures.

While the patient was recovering from the effects of the anesthetic, one of the surgeons asked him how he felt and he replied "All right," the pronunciation of the words being as distinct as anyone could speak them.

This was the first time that the operation of staphylorrhaphy had been performed in Erie and the case offers an excellent illustration of the value of Glyco-Thymoline in operations upon mucous surfaces, where the use of escharotic antiseptics like bichloride of mercury and carbolic acid are contra-indicated.

Two weeks prior to this operation, for the purpose of obtaining perfect cleanliness and having the oral cavity in as near a normal condition as possible, the patient was ordered to use a 50 per cent solution of Glyco-Thymoline as a mouth wash. This treatment was continued subsequent to the operation and although no other antiseptic was used, the result was most pleasing and satisfactory. In speaking about the case afterwards, Dr. Cochran said he certainly would not have relied solely upon Glyco-Thymoline in connection with such an important operation had he not had an extensive previous experience with the preparation in his practice.



ABSTRACTS and
SELECTIONS

CAUSE AND TREATMENT OF CONSUMPTION.

BY CYRUS L. TOPLIFF.

Medical science claims that the presence of the tubercle bacillus in the lungs is the fundamental cause of phthisis, or consumption.

After several generations of study and experiment, the medical profession of the entire world have finally come to the conclusion that this disease is not amenable to drug treatment; they seem to have directed their attention to discovering some means of destroying the life of the germ in the lungs, in place of removing certain fundamental causes which make it possible for the germ to exist there. The fact that so little progress has been made in the treatment of the disease, would indicate that some of the important conditions of causation have hitherto been overlooked. Some modern medical writers claim that malnutrition is the cause of phthisis, but people suffer from malnutrition, in a severe form, and yet do not have phthisis; in fact, they could not have it unless they had some unhealthy lung tissue especially suited to the development of this germ.

The tubercle bacillus requires an unhealthy tissue and a certain amount of moisture to favor its development, and the lungs are most frequently infected because they are seldom fully developed. This is due to the fact that the apex or top of the lung is seldom filled with air, and consequently the tissue in that part of the lung becomes weak and unhealthy—usually the result of improper breathing. When this microscopic vegetable germ becomes established in the unhealthy or diseased tissue of the lungs, no drug has yet been discovered which will stop its rapid growth. Unhealthy tissue is absolutely necessary for its development. A person with active, healthy lungs can inhale these germs, and will experience no harm from them. The facts herein described explain the leading and fundamental causes, which become operative when other concomitant and requisite conditions are present.

It is not the germs which make *all* the trouble (they are only an

accidental condition—merely like a scavenger that lives on diseased tissue); they are only active because of a weak condition of the tissues, resulting from various causes. Of course, phthisis could not exist without the germ; neither could the germ exist without the unhealthy tissue to favor its development. The unhealthy tissue in the lungs could not exist unless there was a cause for it, which condition usually results from an undeveloped state of the lungs, although the same condition could be caused by an attack of pneumonia, or grippe, and from other causes. Even if the germ has the unhealthy tissue favorable for its development, the disease can progress but little, unless the vital force of the patient has been greatly impaired, as a result of mental or nervous strain. Therefore, *the disease cannot be caused by the germs, unless the necessary accompanying conditions are present.* The germ, therefore, is only *one factor* in the cause; the leading fundamental cause being the condition of the mind, which made it possible for the patient's vital force to become so reduced. It is this phase, or condition of causation, which has hitherto been overlooked; and accounts for the unsatisfactory results experienced in the treatment of this disease.

I do not claim that the condition of the mind represents the direct cause of phthisis, but it is, without any doubt, the fundamental and most important condition to be considered in the *treatment* of this disease.

Phthisis is made possible on account of the weakness of the motor and other nerves of the lungs; also of the heart, stomach, and any other internal organs which have to do with the proper digestion and assimilation of food. As all the motor and other nerves are controlled entirely by the mind, we must look there for the leading fundamental trouble. If anything goes wrong with the engine or motor power of a large manufactory, so that it does not run in perfect smoothness, or rhythm, the uneven motion is transmitted to every machine in the entire establishment; and if the motor is allowed to continued running out of balance, it will soon be worn out and ruined. Now, the mind is infinitely more sensitive and powerful than any machine motor, and if it has full control of all the nerves in the body, then when it becomes overstrained or excited through worry, fear, or irritation of any kind—either from physical or mental causes—it will be thrown out of perfect balance, or rhythm, and this disturbance will extend through the entire nervous system. If this

strain, or irritation, is continued for some time, the mind becomes correspondingly weakened and loses its power over the body, and subsequently all the nerves become similarly affected, and are unable to perform their normal functions.

When the mind is depressed or excited, the action of the heart is correspondingly changed, and the stomach and other digestive organs are affected in the same way; thus preventing the proper digestion and assimilation of food, producing, in time, malnutrition, which accounts for the emaciation which usually accompanies this disease. The motor nerves of the lungs also become weakened, and make it impossible for them to expel the tuberculous matter which has already collected, and which continues to collect with great rapidity for the same reason. With a weak heart, which cannot keep up a proper circulation of the blood, and a weak stomach and digestive organs, which cannot digest and assimilate the food properly, and weak lungs, which have not sufficient power to expel the tuberculous matter, it is no wonder that the pus collects there and the germs multiply, and the patient has an increased pulse and temperature.

Recent tests have demonstrated the fact that when the real causes are corrected, and the action of the heart is increased by a proper massage treatment, the pulse and temperature are very quickly reduced to normal, and will continue to remain so, notwithstanding the fact that the lungs continue to retain large quantities of tuberculous matter for some time afterward. The pulse and temperature will seldom rise again, unless caused to do so by some mental worry or disturbance. Nature will afterward take care of the tuberculous matter remaining in the lungs, just as soon as the motor nerves and tissues of the lungs have acquired sufficient strength to expel it.

The *treatment* of phthisis is, of course, the most important subject to consider. The environment, and conditions of the disease in different patients, are so variable, that no single treatment can be specified for all. The following suggestions will answer for most cases, and are especially recommended for patients suffering from the disease in an advanced stage.

It has always been truly stated that this disease was incurable, on account of the patient not having sufficient vital force or nervous energy to resist it. Such being the case, the matter of first importance is to retain all the nervous strength the patient now possesses,

and cut off every influence which could possibly reduce it. Every person understands that if he spends more money than his income, financial distress will surely follow; but most people waste their nervous energies with the utmost extravagance, and then seem surprised that they should experience any nervous weakness as a result.

When a motor machine does not run properly, the first thing to be done is to put every part of it in perfect balance, so that it will run smoothly. The same rule applies to the human body. When the mind, through mental irritations, is thrown out of balance, then the whole body is correspondingly affected, and the first thing to do is to restore it to a rhythmic condition. To do this, the patient must be taught how to think, breathe, and act in a rhythmic manner.

Some physicians have met with most pronounced success in treating incipient cases of phthisis by deep, rhythmic breathing. This favorable result is not due entirely to the fact of opening the air cells and introducing fresh air into the lungs, but to the additional fact that the patient, in breathing rhythmically, acquires the habit, more or less, of thinking and acting in a rhythmical manner, which gives great rest to the mind and all the nerves of the body. If the patient is suffering from the disease in an advanced stage, he should be given a large, sunny room, and the windows should be kept wide open, both day and night. He should be carefully instructed as to the real cause of his condition, and it should be impressed fully on his mind that his recovery will depend largely on his own individual efforts to control his thoughts and mind, so as to eliminate the elements of worry, fear, anxiety, or anything which will irritate the mind or waste his nervous energy. He should be taught how to practice slow, deep, rhythmic breathing. He should not commence by counting slowly six or eight for each inhalation or exhalation, because he may not at first be strong enough to do so; but instruct him to count as many as he can and breathe with perfect ease, and then continue to increase the number as his increased lung capacity and strength will permit.

Members of the family should not ask him how he feels; and if he coughs, should make no remarks about it whatever—if he wants to cough, let him do so peacefully; it is a necessity, and he cannot help it. Do not allow well-meaning but ill-advised people to tell him about their own troubles, or those of their friends—he has troubles enough of his own to consider. Exclude all visitors who

would be liable to excite or irritate him in any way. Do not urge him to take a walk on some fine, sunny day—let him have the fresh air and sunshine without active exercise; it will be time enough for him to take a walk when he has recuperated his physical and nervous strength sufficient to do so without experiencing any reactionary weakness afterward. Massage treatment will make up for lack of exercise. Save his physical and nervous strength in every way possible. Many patients are kept in a continual state of worry about their pulse and temperature, and therefore it is best to ignore that condition as much as possible, especially when in the presence of the patient.

In addition to these suggestions, the proper kind of massage treatment will be found of great value in assisting the heart to do its work, and in promoting the proper circulation of the blood.

Limited space will not allow an extended description of massage treatments especially suited for this disease, but, in all cases, the massage manipulation should be given firmly and in perfect rhythm, but very slowly; no strokes should be given on any part of the body more rapidly than the normal pulse rate. If strokes, with a heavy pressure, are made more rapidly than the normal pulse rate, then an abnormal pressure is produced on the walls of the veins and arteries, which will cause additional congestion, and consequent irritation of any inflamed parts of the body. In order to cure phthisis, it is of the utmost importance that the mind be relieved of all irritations. In some cases, even a painful tooth is sufficient to irritate the mind and cause it to be out of rhythm, not that any single irritation will do so much harm, but the combination of a number of mental or physical irritations is sufficient to cause the conditions which make phthisis possible, and also prevent its cure.

Always remember that what the patient needs most is perfect quiet and rest for the mind until it can recover its normal strength and be able to fulfill its natural functions.

If the medical profession will direct their skill and energies to the treatment of this disease, on the lines herein described, their efforts will soon result in the discovery of new truths and new treatments; and in a comparatively short time, consumption will be controlled and cured as easily as any other disease.—*Scientific American*.

THE CLARK DENTAL BILL

Introduced by Senator A. C. Clark, February 21, 1905.

A BILL for an act to regulate the practice of Dental Surgery and Dentistry in the State of Illinois and to repeal an act therein named.

Section 1. *Be it enacted by the People of the State of Illinois represented in the General Assembly:* That a Board of Examiners, to consist of five practicing dentists, to be known as the Illinois State Board of Dental Examiners, is hereby created, whose duty it shall be to carry out the purposes and enforce the provisions of this act, as hereinafter specified. The members of said board shall be appointed by the Governor, and at the time of their appointment upon said board, must be actual residents of the State and must have been, for a period of five years or more, legally licensed to practice dentistry or dental surgery in this State: *Provided, however,* that no person shall be eligible to appointment to said board who is in any way connected with or interested in any dental college or dental department of any institution of learning. The term for which the members of said board shall hold office shall be five years: *Provided,* that the members of the dental board, in office at the time of the passage of this act, shall be permitted to serve out their respective terms of office for which they were appointed, and until their successors shall be duly appointed. In case of a vacancy occurring on said board, such vacancy shall be filled by the Governor, as herein provided.

Section 2. Said board shall choose one of its members president and one secretary thereof, and it shall meet at least once in each year, and oftener, if necessary, in the discretion of the board, and at such time and places as it may deem proper. A majority of the members of said board shall, at all times, constitute a quorum, for the transaction of the business of the board, and the proceedings thereof shall, at all reasonable times, be open to public inspection.

Section 3. No person, unless previously registered or licensed to practice dentistry in this State at the time this act shall become operative, shall begin the practice of dentistry or dental surgery, or any branches thereof, without first applying for and obtaining a license for such purpose from the Illinois State Board of Dental Examiners. Application shall be made to said board in writing, and shall, in every instance, be accompanied by the examination fee of twenty dollars (\$20), together with satisfactory proof that the applicant is of good moral character and twenty-one years of age or over at the time of making the application. Application from a candidate who desires to

secure a license from said board to practice dentistry or dental surgery in this State shall be accompanied by satisfactory proof that the applicant so applying for a license has been engaged in the actual, legal and lawful practice of dentistry or dental surgery in some other state or country for five consecutive years just prior to application; or is a graduate of and has a diploma from the faculty of a reputable dental college, school, or dental department of a reputable university; or is a graduate of and has a diploma from the faculty of a reputable medical college or medical department of a reputable university, and possesses the necessary qualifications prescribed by the board. When such application and the accompanying proofs are found satisfactory, the board shall notify the applicant to appear before it for examination at a time and place to be fixed by the board. Examination may be made in whole or in part, orally or in writing at the discretion of the board, and shall be of a character as to test the qualification of the applicant to practice dentistry or dental surgery. All examinations provided for in this act shall be conducted by the board, which shall provide for a fair and wholly impartial method.

Section 4. Said board of dental examiners shall make rules or regulations to establish a uniform and reasonable standard of educational requirements to be observed by dental schools, colleges or dental departments of universities, and said board may determine the reputability of those by reference to their compliance with said rules or regulations.

Section 5. Any person shall be regarded as practicing dentistry or dental surgery within the meaning of this act, who shall treat, or profess to treat any of the diseases or lesions of human teeth or jaws or extract teeth or shall prepare and fill cavities in human teeth or correct the malposition of teeth or supply artificial teeth as a substitute for natural teeth. *Provided*, That nothing in this act shall be so construed as to prevent regularly licensed physicians or surgeons from extracting teeth. Further, this act shall not prevent students from performing dental operations under the supervision of competent instructors within a dental school, college or dental department of a university recognized as reputable by the Illinois State Board of Dental Examiners.

Section 6. Any person licensed to practice dentistry or dental surgery in this State by the Illinois State Board of Dental Examiners, as hereinbefore provided, shall personally and within ninety days from date of issue, cause such license to be registered with the county clerk of such county or counties in which such person desires to

engage in the practice of dentistry or dental surgery, and the county clerks of the several counties of this State shall charge for registering such license, a fee of twenty-five cents (\$.25) for each registration. And it is hereby provided further, that every person who engages in the practice of dentistry or dental surgery in this State shall cause his or her license to be registered with the county clerk before beginning the practice of dentistry in said county, and to be at all times, displayed in a conspicuous place, in his or her office wherein he or she shall practice such profession, and shall further, whenever requested, exhibit such license to any of the members of the said board or its authorized agent.

Section 7. The board may refuse to issue the license provided for in this act, or may revoke such license, if issued to individuals who have, by false or fraudulent representations, obtained or sought to obtain practice or by false or fraudulent representations obtained or sought to obtain money or any other thing of value, or have practiced under names other than their own, or for any other dishonorable conduct. The board, when written charges have been filed with its secretary, and seem sustained by proof, shall fix a time and place for the examination of a person so charged and shall give written notice to the said person of the time and place, and furnish him with a copy of the charges, at least twenty days prior to the date fixed for the examination.

Section 8. Any failure, neglect or refusal on the part of any person obtaining a license to practice dentistry or dental surgery from the said board, to register such license with the county clerk of some county in this State, as above directed, within ninety days from the date of issue of the same, shall work a forfeiture of such license, and no license when once forfeited, shall be restored, except upon payment to the said board of the sum of fifteen dollars (\$15) for such neglect, failure or refusal to register such license and the surrender of forfeited license.

Section 9. In order to provide the means for carrying out and enforcing the provisions of this act, the said board shall charge each person applying to it for examination for a license to practice dentistry or dental surgery in this State, an examination fee of twenty dollars (\$20), and in addition thereto a license fee of five dollars (\$5.00), for every license or duplicate license issued by said board, and out of the funds coming into the possession of the board under the provisions of this act, the members of said board shall each receive as compensation the sum of ten dollars (\$10) for each day

actually engaged in the duties of the office and all legitimate and necessary expense incurred in attending the meetings of the said board. *Provided*, that the secretary of the board, for the purpose of enforcing the provisions of this act, shall receive a salary to be fixed by the board, instead of the per diem of ten dollars (\$10). All expenses shall be paid from the fees, fines and penalties received and recovered by the board under the provisions of this act. *Provided*, that no part of said expense shall be paid out of the State Treasury. All moneys received in excess of said per diem allowance and other expenses herein provided shall be held by the secretary of the said board as a special fund for meeting expenses of said board, and said board shall make an annual report of its proceedings to the Governor by the 15th day of December of each year, together with an account of all moneys received and disbursed by them pursuant to this act.

Section 10. Any person filing or attempting to file as his own the diploma or license of another, or a forged affidavit of identification or qualification, shall be deemed guilty of a felony, and upon conviction thereof, shall be subject to such fine and imprisonment as is made and provided by the statutes of this State for the crime of forgery.

Section 11. Any person who shall practice dentistry in this State without being registered or without a license for that purpose, or violates any of the provisions of this act, shall be subject to prosecution before any court of competent jurisdiction upon complaint, information or indictment, and shall upon conviction, be fined for each offense in any sum not less than fifty dollars (\$50) nor more than two hundred dollars (\$200). All fines imposed and collected under this act shall be paid to the Illinois State Board of Dental Examiners for its use.

Section 12. All licenses issued by the board shall be signed by all of the members thereof, and be attested by its president and secretary.

Section 13. An act to insure the better education of practitioners of dental surgery, and to regulate the practice of dentistry in the State of Illinois, approved May 30, 1881, and in force July 1, 1881, and all other acts and parts of acts amendatory thereto, are hereby repealed. *Provided, however*, that such repeal in no wise affect any suit, prosecution or court proceeding pending at the date of the passage of this act.

THE RELATION OF THE DEALER TO THE PROFESSION

The traveling man, however, is in a different position. His time in a town is limited and he must arrange his time according to the railroad schedule. He always sends his announcements about a week ahead of his coming. On his arrival in a town he calls on his customers to arrange with them when will be the most suitable time to call at his hotel. Most of the men keep their appointments, but the procrastination of some of them is a source of considerable worry to the traveler. He waits a considerable time beyond the appointed hour and then makes another trip to the doctor's office, only to find it locked up, the doctor having serenely forgotten all about his appointment and gone home to his lunch. The traveler goes back to his hotel, eats his own lunch and then makes another trip to his dilatory customer's office. He meets with profound apologies and the cheering information that "I am pretty busy now, but will be down about five o'clock." There is nothing else to do but go back to the hotel and wait. Even then the traveler may be doomed to disappointment by his customer failing to put in an appearance, or possibly he may come down and inform him that, "Come to think of it, I don't really need anything to-day. So-and-So's man was here last week and I stocked up pretty well from him." The traveler smiles his best, says he is sorry and hopes for better luck next time, but inwardly he thinks a few things, as had the doctor told him in the morning that he was not in need of anything he might have saved several hours in time and some of the firm's expense money. The other dentists in town have kept their appointments promptly, and had this man kept his the traveler could have finished his business and very likely left town on an afternoon or an evening train. As it is, he is probably stuck to sit up until midnight waiting for a train that will carry him to his next stopping place, where he will arrive at the pleasant hour of one or two o'clock in the morning. This is not an extreme or isolated case, but an experience which traveling dental salesmen have two or three times a week. Inasmuch as the dentists expect their patients to keep their appointments and be on hand promptly, they should keep their own business appointments also with some degree of regularity.—*Abstract of paper read by Herman G. Wulzendorf, Dental Era.*

SOCIETY PROCEEDINGS

AMERICAN MEDICAL ASSOCIATION—SECTION ON STOMATOLOGY.

The next meeting of the American Medical Association will be held in Portland, Oregon, July 11-14, 1905. The program for the Section on Stomatology is as follows:

1. Chairman's Address, Vida A. Latham, Chicago.
2. "The Causes and the Treatment of the Mouth Manifestations of Certain Metabolic Disorders," Alfred C. Croftan, Chicago.
3. "The Oral Manifestations of Diabetes Mellitus," Hermann Prinz, St. Louis.
4. "The Urine and Saliva in So-called Pyorrhea Alveolaris," Wm. J. Lederer, New York City.
5. "Further Researches in the Tréatment of Interstitial Gingivitis," Eugene S. Talbot, Chicago.
6. "Excretion of Toxic Products into the Mouth with Relation to Local Infection," Fenton B. Turck, Chicago.
7. "The Relations of Dentistry to General Medicine," Samuel Hopkins, Boston, Mass.
8. "A Common Ground for Medicine and Dentistry," Frank L. Platt, San Francisco.
9. "The Physician as a Dentist," Calvin W. Knowles, San Francisco.
10. "The Physician's Duty to the Child from a Dental Standpoint," Alice M. Steeves, Boston, Mass.
11. "Dentistry of To-morrow," H. P. Carlton, San Francisco.
12. "What Will Probably Be the Dental Educational Standard for the Coming Decade?" C. C. Chittenden, Madison, Wis.
13. "Fatal Oral Pathologic Conditions," G. V. I. Brown, Milwaukee, Wis.
14. "Surgical Bacteriology of the Mouth," A. H. Levings, Milwaukee, Wis.
15. "Surgical Aspects of Disturbed Dentition of the Third Molar," M. L. Rhein, New York City.
16. "The Treatment of Suppurative Affections of the Face and Neck Emanating from the Mouth," M. I. Schamberg, Philadelphia, Pa.

17. "The Medical Relations of Certain Conditions of the Mouth," L. Duncan Bulkley, New York City.
18. "Some Effects of Inebriety on the Teeth and Jaws," T. D. Crothers, Hartford, Conn.
19. "The Ossification of the Lower Jaw," Edward Fawcett, Bristol, England.
20. "Ankylostomiasis and Tongue Pigment," T. M. Russell Leonard, Grenada, British West Indies.
21. "Notes on Tooth Genesis in Man," H. W. Marett Tims, London, England.
22. "The Etiology of Tooth Corrugations," G. Lenox Curtis, New York City.
23. "To What Extent Are Teeth Necessary to the Human Being?" M. H. Fletcher, Cincinnati, Ohio.
24. "Anesthesia by Ethyl-Chlorid and Similar Agents," H. C. Miller, Portland, Oregon.
25. "The Röntgen Rays in Dentistry," M. Kassabian, Philadelphia, Pa.

The program is entirely scientific. All dentists are invited to be present and take part in the discussions. Those wishing to become members may do so by filling out blanks furnished by the Association, signed by the president and secretary of the State or local dental or medical society, enclosing five dollars and sending to the secretary of the Section on Stomatology for his signature. This also includes the *Journal of the American Medical Association* for one year.

VIDA A. LATHAM, Chairman.

EUGENE S. TALBOT, Secretary.

LEWIS AND CLARK DENTAL CONGRESS.

The Lewis and Clark Dental Congress, to be held in Portland, Oregon, on July 17, 18, 19 and 20, 1905, promises to be the largest ever held on the Pacific Coast. The Committee on Clinics asks for voluntary clinics and table demonstrations from members of the profession, and suggests that notice of the same be sent the committee as soon as possible. In order that the program be complete, names of clinicians and clinics must reach the chairman not later than July 15.

C. N. NÖTTAGE, Chairman Committee on Clinics,
Oregonian Building, Portland, Ore.

F. I. SHAW, Seattle, Wash.

B. S. SCOTT, Tacoma,

A. STARK OLIVER, Spokane, Wash.

C. E. POST, San Francisco, Cal.

CLAUD W. GATES, Salt Lake City, Utah.

J. H. HOLMES, New Westminster, B. C.

A. W. CATE, Boise, Idaho.

W. H. BARTH, Great Falls, Montana.

LIST OF STATE COMMITTEES.

Alabama—Chairman, J. A. Hall, Collinsville; essays, H. C. Hassell, Tuscaloosa; clinics, T. P. Whitby, Selma; membership, Geo. S. Vann, Gadsden.

Arkansas—Essays and clinics, Wm. H. Buckley, Little Rock; membership, Chas. Richardson, Fayetteville.

Connecticut—Chairman, Jas. McManus, 180 Pratt st., Hartford; essays, E. S. Gaylord, 1110 Chapel st., New Haven; clinics, Chas. McManus, 180 Pratt st., Hartford; membership, J. Tenny Barber, Wallingford.

Delaware—Essays and clinics, W. L. Grier, Millford; membership, C. R. Jeffries, 1016 Delaware ave., Wilmington.

District of Columbia—Essays and clinics, John H. London, 1115 G st. N. W., Washington; membership, W. F. Finley, 1928 I st. N. W., Washington.

Florida—Essays and clinics, J. E. Chase, Ocala; membership, W. G. Hason, Tampa.

Georgia—Essays, H. H. Johnson, Mason; clinics and membership, T. P. Hinman, 22½ S. Broad st., Atlanta.

Illinois—Chairman, G. V. Black, Lake and Dearborn sts., Chicago; vice-chairman, E. S. Talbot, 100 State st., Chicago; essays, J. G. Reid, 67 Wabash ave., Chicago; clinics, D. M. Gallie, 100 State st., Chicago; membership, A. H. Peck, 92 State st., Chicago.

Indian Territory—Clinics, C. W. Day, Vinita; membership, S. E. Lang, South McAlester.

Indiana—Chairman, G. E. Hunt, 131 E. Ohio st., Indianapolis; essays and clinics, J. Z. Byram, 131 E. Ohio st., Indianapolis; membership, W. A. Mason, 130 W. Wyne st., Fort Wayne.

Iowa—Clinics, W. R. Clack, Clear Lake; membership, Wm. Finn, Cedar Rapids.

Kansas—Chairman, A. H. Thompson, Topeka; essays, Frank Hetrick, Ottawa; clinics, Geo. A. Esterly, Lawrence; membership, C. B. Reed, Topeka.

Kentucky—Chairman, W. E. Grant, Masonic bldg., Louisville; essays and clinics, Max Eble, Equitable bldg., Louisville; membership, J. Richmond Wallace, 750 Third st., Louisville.

Louisiana—Essays and clinics, C. Victor Vinges, 830 Canal st., New Orleans; membership, Jules J. Sarrazin, 531 Canal st., New Orleans.

Maine—Membership, H. A. Kelly, 609 Congress st., Portland.

Maryland—Chairman, B. Holly Smith, 1007 Madison st., Baltimore; clinics, W. G. Foster, 9 N. Frankland st., Baltimore; membership, C. J. Grieves, Park and Madison sts., Baltimore.

Massachusetts—Chairman, W. E. Boardman, 184 Boylston st., Boston; clinics, C. W. Rodgers, 165 Harvard st., Boston; membership, J. W. Dawsley, 175 Fremont st., Boston.

Michigan—Chairman, George L. Fields, Fife bldg., Detroit; clinics and membership, Henry C. Raymond, Majestic bldg., Detroit.

Minnesota—Chairman, E. K. Wedelstaedt, New York Life bldg., St. Paul; clinics, A. C. Searl, Awatonna; membership, Jas. E. Weirick, 138 E. Sixth st., St. Paul.

Mississippi—Essays, W. E. Walker, Bay St. Louis; clinics, W. O. Talbot, Biloxi; membership, T. B. Wright, Coffeeville.

Missouri—Chairman, Burton Lee Thorps, 3666 Olive st., St. Louis; essays, J. P. Root, Deardorff bldg., Kansas City; clinics, D. O. M. LeCron, New Trust bldg., St. Louis; membership, E. E. Haverstick, Boyle and Maryland aves., St. Louis.

New Jersey—Chairman, Chas. A. Meeker, 29 Fulton st., Newark; clinics, Chas. S. Stockton, 7 Central ave., Newark; membership, R. M. Sanger, East Orange.

New York—Chairman, H. J. Burkhart, Batavia; vice-chairman, Wm. Carr, 35 W. Forty-sixth st., New York; essays, R. H. Hofheinz, Chamber of Commerce, Rochester; clinics, Ellison Hillyer, 472 Green ave., Brooklyn; membership, John I. Hart, 118 W. Fifty-fifth st., New York.

North Carolina—Chairman, V. E. Turner, Raleigh; essays, E. J. Tucker, Roxboro; clinics, Chas. L. Alexander, Charlotte; membership, J. A. Gorman, Asheville.

Ohio—Chairman, L. P. Bethel, 1255 Neil ave., Columbus; essays, L. L. Barber, The Spitzer, Toledo; clinics, Henry Barnes, New England bldg., Cleveland; membership, H. C. Brown, 185 E. State st., Columbus.

Pennsylvania—Chairman, J. A. Libbey, 500 Penn ave., Pittsburg; 1st vice-chairman, Wilbur F. Litch, 1500 Locust st., Philadelphia; 2d vice-chairman, S. H. Guilford, 1728 Chestnut st., Philadelphia; essays, E. C. Kirk, P. O. Box 1615, Philadelphia; clinics, H. B. McFadden, 3505 Hamilton ave., Philadelphia; membership, J. T. Lippincott, 1483 Walnut st., Philadelphia.

South Carolina—Clinics and membership, L. P. Dotterer, 102 Broad st., Charleston.

Tennessee—Chairman, J. Y. Crawford, Jackson bldg., Nashville; essays, A. R. Melindy, Deaderick bldg., Knoxville; clinics, J. P. Gray, 212 N. Spruce st., Nashville; membership, R. Boyd Bogle, 623½ Church st., Nashville.

Texas—Chairman, John W. David, Corsicana; essays, J. G. Fife, Dallas; clinics and membership, M. S. Merchant, Giddings.

Virginia—Essays, L. M. Cawardin, 407 E. Main st., Richmond; clinics, F. W. Stiff, 600 E. Grace st., Richmond; membership, H. W. Campbell, Suffolk.

Wisconsin—Chairman, C. C. Chittenden, 21 W. Main st., Madison; essays and clinics, G. V. I. Brown, 445 Milwaukee st., Milwaukee; membership, E. A. Gatterdam, Third and Main sts., La Crosse.

Hawaii—Chairman, J. M. Whitney, Honolulu; clinics and membership, M. E. Grossman, Honolulu.

Canada—Essays, A. E. Webster, 3 College st., Toronto; clinics and membership, Edward Abbott, 13 College st., Toronto.

Mexico—Clinics and membership, Jose J. Rojo, No. 2 Plateos, City of Mexico.

Portland's population is 150,000. The climate in July is ideal for holding such a meeting. We are assured of a program of equal merit to the one given at St. Louis last year at the International Dental Congress. The manufacturers are going to make as good a display as they did at St. Louis. The Portland Stomatological Club has arranged for club rooms for headquarters for visiting dentists, and where they may secure mail. The low railroad rates to the Pacific Coast this year, good on any line to the coast and on any other line returning within three months from date of sale, give an unusual opportunity for visiting Yellowstone Park, Puget Sound, Alaska, Portland and the magnificent Columbia River, Yosemite Valley and other points in California. This will make an ideal vacation trip for our Eastern friends, and allow them to attend the Congress, and as our meeting will be concluded on the 20th, time will be allowed for the return trip and attendance upon the national meetings at Buffalo.

This Congress will not be given in sections. All the meetings will be general in character. It will be held in a hall (not in the vicinity of the Fair) capable of holding 5,000 people, and which will house the meetings for essays, clinics and exhibits.

SOCIETY ANNOUNCEMENTS

AND REPORTS OF MEETINGS

NATIONAL SOCIETY MEETINGS.

Lewis and Clark Dental Congress, Portland, Ore., July 17-20.
National Dental Association, Buffalo, N. Y., July 24.
National Association of Dental Examiners, Buffalo, N. Y., July 24.
National Association of Dental Faculties, Buffalo, N. Y., July 27.
Northwestern Dental Association, Rutland, Vt., Oct. 18-19.

STATE SOCIETY MEETINGS.

California State Dental Association, no meeting except Lewis and Clark.

Indiana State Dental Association, Indianapolis, July 27-29.
Maine Dental Society, Portland, July 18-19-20.
New Jersey State Dental Society, Asbury Park, July 19-20-21.
Pennsylvania State Dental Society, Philadelphia, June 27-28-29.
South Carolina State Dental Association, White Stone Springs, July 18-19-20.
Wisconsin State Dental Society, Oshkosh, July 18-19-20.

NORTHERN INDIANA DENTAL SOCIETY.

The Northern Indiana Dental Society will hold its annual meeting at Logansport, September 19 and 20th.

FRANCIS M. BOYER, D. D. D.,
Secretary.

PENNSYLVANIA STATE DENTAL SOCIETY.

The 37th annual session of the Pennsylvania State Dental Society will be held in the Bellevue-Stratford Hotel, Philadelphia, on the 27th, 28th and 29th of June.

MICHIGAN DENTAL ASSOCIATION.

The 49th annual meeting of the Michigan Dental Association will be held at Detroit, Mich., July 10, 11 and 12. An unusually attractive program has been provided for and the entertainment features as arranged by the Detroit Dental Society are very complete.

A. L. Le GRO, Sec'y.

WISCONSIN STATE DENTAL SOCIETY.

The thirty-fifth annual meeting of the Wisconsin State Dental

Society will be held at Oshkosh, Wisconsin, July 18-20, 1905. An excellent program of papers and clinics is being prepared by the Executive Committee. All ethical members of the profession are invited to meet with us.

W. H. MUELLER, Secretary,
Madison, Wis.

ALABAMA STATE DENTAL ASSOCIATION.

The thirty-sixth annual meeting of the State Dental Association met at Gadsden, May 9-12. Mobile was unanimously selected as the next place of meeting. Officers for the ensuing year are: N. N. Vann, Attalia, president; Charles L. Gunn, Gadsden, first vice-president; A. T. Reeves, Selma, second vice-president; L. A. Crumly, Birmingham, secretary, re-elected.

NATIONAL ASSOCIATION OF DENTAL FACULTIES.

The annual meeting of the N. A. D. F. will be held at Buffalo, commencing at 2 p. m. on Thursday, July 27, 1905. The Executive Committee will meet at 10 a. m. the same day. Special business to come before the N. A. D. F. is the consideration of the proposed revision of the constitution and by-laws.

H. B. TILSON, Chairman Ex. Committee.

JOHN I. HART, Sec'y Ex. Committee.

FLORIDA STATE DENTAL SOCIETY.

The twenty-second annual meeting of the Florida State Dental Society was held at Seabreeze, May 31. Next meeting second Wednesday in June, 1906, at the Continental Hotel, Atlantic Beach. Officers elected for the ensuing year: Dr. Guy C. Estes, of Palatka, president; Dr. C. F. Kemp, of Key West, first vice-president; Dr. R. E. Chafer, of Miami, second vice-president; Dr. C. H. Frink, of Fernandina, corresponding secretary; Dr. G. Enloe, of Miami, recording secretary; Dr. D. G. Barnett, of Arcadia, was re-elected treasurer.

INTERNATIONAL DENTAL FEDERATION.

The next annual meeting of the Executive Council of the Federation Dentaire Internationale will convene in Hanover, Germany, August 7, 1905, immediately following the annual meeting of the Central-Verein Deutscher Zahnartzte. Announcement of the program for the meeting and the projected work for the Federation during the present period will shortly be made through the dental journals and through the official bulletin of the Federation.

EDWARD C. KIRK, Secretary-General.

SOUTHERN WISCONSIN DENTAL ASSOCIATION.

The eleventh annual meeting of the Southern Wisconsin Dental Association was held May 30-31. Officers were elected as follows: President, J. J. Wright, Milwaukee; first vice-president, C. F. Rodolf, Muscoda; second vice-president, Dr. T. Heidbrink, Union Grove; secretary, C. W. Collyer, Clinton, Wis.; treasurer, W. G. Hales, Mineral Point. The next meeting will be held at Milwaukee.

INDIAN TERRITORY DENTAL ASSOCIATION.

At the conclusion of a two-days' session at South McAlester, the Dental Association of Indian Territory elected the following officers: President, A. E. Bonnell, Muskogee; vice-president, S. A. Long, South McAlester; secretary, H. A. Stickel, Jr., Muskogee; treasurer, A. Walter, Checotah. The meeting next year will be at Ardmore. A committee was appointed to prepare and push through congress a law governing the practice of dentistry in the territory.

TEXAS STATE DENTAL ASSOCIATION.

The Texas State Dental Association met at Austin, May 18, 19, 20. Galveston was named as the next place of meeting. The time for holding the next annual meeting was left to the executive committee, but it will more than likely be about the middle of June, 1906. The election of officers resulted as follows: President, Dr. Pitt S. Turner, of Belton; first vice-president, Dr. W. R. Rathbone, of Cuero; second vice-president, Dr. R. D. Griffis, of Paris; secretary and treasurer, Dr. Bush Jones, of Dallas.

MISSISSIPPI STATE DENTAL ASSOCIATION.

The Mississippi Dental Association selected Gulfport as the next place of meeting, and fixed the date for the second Tuesday in June. The officers elected for the coming year are: A. B. Kelly, Yazoo City, president; L. B. McLaurin, Natchez, vice-president; E. Hood, Tupelo, secretary; W. H. Beaben, McComb, corresponding secretary; C. C. Crowder, Kosciusko, treasurer.

The executive committee was named as follows: E. D. Hood, Tupelo, chairman; W. O. Talbot, Biloxi, and C. F. Boger, of Natchez.

CONNECTICUT STATE DENTAL ASSOCIATION.

The annual convention of the Connecticut State Dental Association was held at New Haven, April 18-19. The following were unanimously chosen by the association to hold office for the coming year: President, Edward B. Griffith, Bridgeport; vice president, Albert

W. Crosby, New London; treasurer, W. O. Beecher, Waterbury; secretary, W. V. Lyon, Bridgeport; librarian, R. H. Keeler, New London; editor, A. H. Spencer, Westerly, R. I.; executive committee, Edward S. Rosenbluth, chairman, Bridgeport; F. W. Brown, New Haven; C. C. Prentiss, Hartford.

IOWA STATE DENTAL ASSOCIATION.

Dr. C. M. Work, of Ottumwa, was elected president of the Iowa State Dental Society, May 3. Dr. F. B. James was chosen vice-president, Dr. C. E. Bruner, of Waterloo, was re-elected secretary, and Dr. MacReynard, of Osceola, treasurer. The members of the executive committee for three years are Drs. Binn, Bandy and Conzett; for one year, Dr. Hunt.

The State Society placed the names of Drs. H. L. Madison, B. H. Hall and N. E. Deemer for appointment on the state board of dental examiners, who were approved and Governor Cummins will make his choice from the list prepared.

ARKANSAW STATE DENTAL ASSOCIATION.

The Arkansaw State Dental Association held its annual meeting at Texarkana May 22-23. The following officers were elected for the ensuing year: President, Dr. A. L. Pendergrass; first vice-president, R. W. Quarles, Van Buren; second vice-president, T. Y. Cooper, Little Rock; secretary and treasurer, Henry P. Hopkins, Argenta; corresponding secretary, J. C. Settles, Arkadelphia.

The state board of examiners chosen for the ensuing year are Charles Richardson of Fayetteville, C. C. Sims of Dardanelle, C. G. Farrow of Little Rock, Ed. Lawson of Camden and A. T. McMillan of Little Rock. Fort Smith was chosen as next place of meeting.

CONNECTICUT STATE DENTAL ASSOCIATION.

These officers were elected at the closing session of the Connecticut State Dental Association's annual convention, April 19th, at New Haven: President, Edward B. Griffith, Bridgeport; vice-president, Albert W. Crosby, New London; treasurer, W. O. Beecher, Waterbury; secretary, W. V. Lyon, of Bridgeport; librarian, R. H. Keeler, of New London; editor, A. H. Spencer, Westerly, R. I.; executive committee, Edward S. Rosenbluth, chairman, Bridgeport; F. W. Brown, New Haven; C. C. Prentiss, Hartford.

Des Moines will be the meeting place for the state association next year.

WISCONSIN STATE BOARD OF DENTAL EXAMINERS.

The next meeting of the Wisconsin State Board of Dental Ex-

aminers for examination of candidates for license to practice dentistry in Wisconsin will be held in Milwaukee, June 26, 1905, at the Wisconsin College of Physicians and Surgeons, corner of 4th St. and Reservoir Ave.

Application must be made to the secretary fifteen days before examination. The candidate must be a graduate of a reputable dental college, or have been engaged in a reputable practice of dentistry consecutively for four years, or an apprentice to a dentist engaged in the reputable practice of dentistry, for five years. For further particulars apply to

J. J. WRIGHT, Secretary,
1218 Wells Bldg., Milwaukee, Wis.

NEW JERSEY STATE DENTAL SOCIETY.

The thirty-fifth annual meeting of the New Jersey State Dental Society will be held in the Auditorium, Asbury Park, N. J., commencing July 19th, and continuing until July 22d. Headquarters at Hotel Columbia; rates for one person in room, \$3.50; two persons in room, \$3.00. Meeting will commence promptly at 10 a. m. on the 19th. The various committees have been successful in securing eminent practitioners for papers of present interest. Some fifty clinicians in the most modern up-to-date dentistry and the space in the large Auditorium most entirely filled with all the newest appliances to practice dentistry. Friday evening will be devoted to the social side with a smoker, including a collation and entertainment to the guests, exhibitors and members. Cut out now the week of July 17th and meet with us. Seven hundred and fifty-six dentists registered last July; make it a thousand this year.

CHARLES A. MEEKER, Secy.

KENTUCKY STATE DENTAL ASSOCIATION.

The thirty-fifth annual convention of the Kentucky State Dental Association ended with one of the largest crowds ever in attendance at a similar meeting.

The feature of the closing day was the election of officers, who will serve for the next two years, and all of the head officers of the association were chosen from the Louisville delegation. They are; Henry Pirtle, president; Max M. Eble, vice-president; W. M. Randall, secretary; F. R. Wilder, treasurer. The Board of Trustees is composed of Newton T. Yeager, Louisville; L. F. Huffman, Lexington, and M. H. Dailey, Paris. The members selected by the association to be recommended to the Governor by the Board of

Trustees for appointment on the State Board of Examiners are J. C. Montgomery, Elizabethtown, and J. W. Jewett, Eminence, Ky.

The next meeting place was left open and will be decided later by the Executive Committee.

WASHINGTON STATE DENTAL SOCIETY.

At a brief session of the Washington State Dental Society, held at Tacoma May 20, officers for the ensuing year were elected, the regular routine business was quickly disposed of and the meeting adjourned to convene again at Bellingham next year.

It was the annual meeting of the society.

All the members of the society expect to attend the National Dental Congress, which meets at Portland in July, and for that reason the usual significance was not given to the state meeting. The new officers elected were:

President, C. A. Darling, of Bellingham; vice-president, Joseph Dunning, of Spokane; secretary, F. W. Williams, of Seattle; treasurer, E. Hurd, of Hoquiam.

Dr. J. M. Meyers, of Tacoma, and Drs. J. Irwin of Vancouver and E. B. Edgers of Seattle were recommended for reappointment on the state dental examining board. Dr. J. M. Myers, president of the Washington society for the past year, presided at the meeting.

THE MISSOURI STATE DENTAL ASSOCIATION.

At the fortieth annual meeting of the Missouri State Dental Association, held in St. Louis, May 24-26, the following officers were elected: President, W. M. Carter, Sedalia; first vice-president, F. H. Achelpohl, St. Charles; second vice-president, F. G. Worthley, Kansas City; recording secretary, H. H. Sullivan, Kansas City; corresponding secretary, Sam T. Bassett, St. Louis; treasurer, J. T. Fry, Moberly. Board of Censors: J. C. Pasqueth, Mexico; J. L. Bridgeford, Macon; DeCoursey Lindsley, St. Louis. Committee on Ethics: J. B. McBride, Springfield; A. J. Prosser, St. Louis; F. M. Fulkerson, Sedalia. Committee on Publication: Otto J. Fruth, St. Louis; J. W. Hull, Kansas City. Committee on Inventions and New Appliances, Ralph H. McCrum, Springfield. Committee on History of Missouri State Dental Association, Burton Lee Thorpe, St. Louis.

Time and place of next meeting, May, 1906, Springfield, Mo.

SAM T. BASSETT, Cor. Sec.

MINNESOTA STATE DENTAL ASSOCIATION.

An increase of 30 per cent in membership marked the close of the annual convention of the Minnesota State Dental Association, June 1, 2, 3. About seventy-five new members were passed upon and elected to the organization, which now includes nearly half of all the practicing dentists in the state.

Two addresses were delivered at the morning session, and a report was made by the committee in charge of the clinics, which have been such a helpful feature of the convention. The annual election of officers was then held, and resulted as follows:

J. F. McRae, president; W. A. Demo, vice-president; H. M. Reid, treasurer; F. E. Cobb, secretary. Mr. Demo is from Blue Earth, but the rest of the offices are filled by Minneapolis dentists. F. S. James, Winona, and F. E. Smith, Lanesboro; J. W. Pemberty and J. F. McRea, Minneapolis, and A. B. Allen and F. H. Horton, St. Paul, were appointed by the governor to the state board.

The next convention will be held in Minneapolis at the university.

IOWA STATE DENTAL SOCIETY.

The Iowa State Dental Society held its forty-third annual meeting at Des Moines, May 2, 3 and 4, 1905. This, without doubt was the best meeting in the history of the society, in point of attendance and general merit of program given.

A special feature of the meeting was the organization of the society into "Special Study Clubs," the thought of same having been worked out and presented to the society in the president's annual address. Six clubs were formed which will pursue work along their respective lines during the year, as follows: Inlay Club, Metallic Filling Club, Crown and Bridge Work Club, Orthodontia Club, Prosthodontia Club, and Pathological Study Club.

The officers for the ensuing year are: President, C. M. Work, Ottumwa; Vice-President, F. B. James, Wilton Junction; Secretary, C. W. Bruner, Waterloo; Treasurer, Mae Reynard, Osceola; Executive Committee, W. R. Clock, Clear Lake; J. B. Monfort, Fairfield; J. V. Couzett, Dubuque. Executive Council, Wm. Finn, Cedar Rapids; R. S. Baudy, Tipton; J. V. Couzett, Dubuque; F. M. Hunt, Des Moines.

NATIONAL DENTAL ASSOCIATION.**SECTION ONE.**

The following programme will be offered for the consideration of this Section in Buffalo, July 25, 27, 1905:

Dr. Calvin S. Case, Chicago, "Orthodontia." Dr. C. Edmund

Kells, Jr., New Orleans, La., "Orthodontia." Dr. V. H. Jackson, New York, "Orthodontia." Dr. R. Ottolengui, New York, "Orthodontia." Dr. H. H. Johnson, Macon, Ga., "Prosthetic Dentistry." Frederic Freeman, Boston, "Prosthetic Dentistry." Dr. W. Storer Howe, Philadelphia, "Crown and Bridge Work." Special paper by Dr. R. H. Hofheinz, Rochester, N. Y., "The D. D. S. Abroad."
 DR. J. G. FIFE, Secretary, Dallas, Texas.
 DR. THOMAS P. HINMAN, Chairman, Atlanta, Ga.

SECTION TWO.

The following programme will be offered for the consideration of this Section in Buffalo, July 25, 27, 1905:

J. V. Conzett, Dubuque, Ia., "Gold As a Filling Material." B. L. Thorp, St. Louis, Mo., Lantern Lecture—"Pioneer Manipulators of Gold Foil." Chas. Milton Ford, New York City, "Dental Education." W. R. Clack, Clear Lake, Ia., "The Necessity for and Method of Preserving the Integrity of the Interproximal Space." Dr. D. O. M. Le Cron, St. Louis, Mo., "A Few Experiments in Porcelain." Dr. D. W. Fellows, Portland, Me., "A Century of Standard Dental Writings." Dr. B. Holly Smith, Baltimore, Md., "Operative Dentistry." Prof. Geo. B. Snow, Buffalo, N. Y. (to be announced). Dr. W. H. K. Moyer, Little Falls, Minn. (to be announced). Dr. D. R. Stubblefield, Nashville, Tenn., "Nomenclature." Dr. S. H. Guilford, Philadelphia, "The Nomenclature of Orthodontia."

DR. C. S. BUTLER, Secretary, Buffalo, N. Y.
 DR. HOWARD E. ROBERTS, Chairman, Philadelphia, Pa.

ST. LOUIS DENTAL COLLEGE.

The Commencement Exercises of the St. Louis Dental College, (formerly Marion-Sims Dental College), were held on Saturday evening, May 6th, 1905, in the Y. M. C. A. Hall.

An eloquent address was delivered by Dr. James W. Lee.

The degree of Doctor of Dental Surgery was conferred by the Dean, M. C. Marshall, D. D. S., on the following members of the senior class:

John Newton Barbee, St. Louis, Mo.; Ernest Fred Becker, Brenham, Texas; Ernest Fred Boewe, West Salem, Ill.; Henry Paul Bockrath, Jefferson City, Mo.; James Larkin Borah, Mt. Erie, Ill.; Beverly Ehrman Broadus, Sedalia, Mo.; Tilmon Howard Bryant, McKinney, Tex.; James Cornelius Burgess, Warrenton, Mo.; Thomas Raymond Burk, Celina, Tex.; Guy Canterbury, Chehalls, Wash.; Legrand Knapp Charles, Monmouth, Ill.; Fennel Moutry

Cole, Steeleville, Mo.; John Elihu Combe, Highland, Ill.; Marvin Browning Combs, San Marcos, Tex.; Harry Roger Dahman, Jacksonville, Ill.; Francis Marion Dean, Bellingham, Wash.; Oscar Thomas Dean, Bellingham, Wash.; George B. Donalson, San Marcos, Tex.; Edward Arthur Dulitz, Charles City, Iowa; William Ernst, St. Louis, Mo.; Philip Finot, St. Louis, Mo.; John Edward Frech, Jr., De Soto, Mo.; William Charles Freivogel, Belleville, Ill.; Oliver Godshall, What Cheer, Iowa; Gustave Adolf Græfe, Berlin, Germany; Willie Brom Henderson, Pilot Point, Tex.; Ernest Ludwig Gottlieb Heyne, Decatur, Ill.; Albert Roy Hofer, Wheeling, W. Va.; Solomon Kampe, St. Louis, Mo.; Frederick John Kayler, Pullman, Wash.; Harry Clyde Kitchell, Newburg, Mo.; Edward F. Koll, Leipzig, Germany; John Riley Lee, Florence, Mo.; Marvin Cope Lee, Florence, Mo.; Roy Hull McCormack, Warrensburg, Mo.; Alpheus Guy MaGee, Louisiana, Mo.; Joseph Henderson Maxwell, Oakdale, Ill.; William Andrew McKee, Akin, Ill.; Samuel Thomas McMillin, St. Louis, Mo.; Henry Edward Menkhaus, St. Louis, Mo.; William Jacob Miller, Higbee, Mo.; Frank Xavier John Orlick, St. Louis, Mo.; Joseph Pius Pecau, St. Louis, Mo.; Leo Carlos Pitkin, Memphis, Mo.; Arnolf Popp, Perryville, Mo.; Julius Radomsky, Jr., St. Louis, Mo.; Glendenning Allan Ralston, Grand Forks, N. D.; Charles Rederer, St. Louis, Mo.; Harry Walter Reinhardt, St. Louis, Mo.; John Allen Robinson, Butler, Mo.; Bert Clark Roper, Chattanooga, Tenn.; William Gottlieb Ruckenbrod, Burlington, Iowa; Doddridge Fielding Sadler, Oak Ridge, Mo.; Gabriel Moses Saliba, Mt. Lebanon, Syria; William Phillip Sanders, Clifton, Kas.; William Frederick Schade, Perryville, Mo.; Jacob Benjamin Schlund, Garfield, Wash.; Chauncey Wilcox Seagrave, St. Louis, Mo.; William Rudolph Steffens, Trenton, Ill.; William Allen Shelton, Warrenton, Mo.; Eury Boon Strange, Walshville, Ill.; William Struble, Memphis, Mo.; George Haskell Taggard, Conway, Mo.; Leon Tiemann, Belleville, Ill.; George Sherley Van Wormer, Virden, Ill.; Edward Albert Voigt, St. Louis, Mo.; Carl Yahlem, St. Louis, Mo.



NEXT ATTRACTION AT COLUMBUS THEATRE.**Commencing Sunday Matinee, June 25th.****"WHEN HEARTS WERE TRUE"****Dr. B. J. Cigrand's Strong Production of a Romance of the American Revolution.**

For the first time on any stage. The following from the pen of Mr Fitzpatric, theatrical press representative:

"The American stage has sought for a generation to produce a truly classical characterization of the stirring times of the American Revolution; the plays in the past for the most part have lacked the element of historic exactness, being founded too often upon mere historical incidents. This new dramatization of the love, heroism and moral rectitude of those early days vividly portrays the scenes and life of these staunch ancestors. If you wish to live in those times, feel the high and noble impulses of those who laid the foundation of our republic, the opportunity is afforded. The atmosphere of 1776 is preserved and the dramatic situations coupled with the humor is brought together in the most facinating manner. Dr. Cigrand's Revolutionary drama is founded on fact and is replete with new historic matter never before offered to the public. His research in Colonial archives evolved the books "The Real Robert Morris," "The Life of Alexander Hamilton" and his recent work, "The History of American Emblems." Of this latter production Ex-President Grover Cleveland writes:

"It contains information authoritatively presented which ought to be within the reach of every patriotic and reading American."

John Hay writes:

"It is an invaluable document for all who are interested in the history of our country."

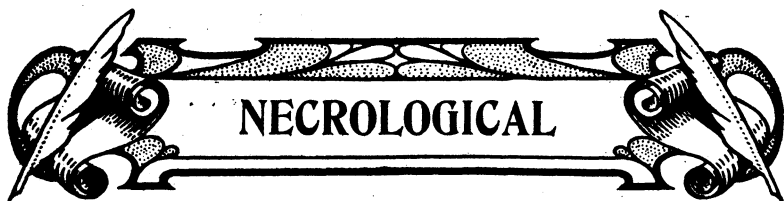
Benson J. Lossing, greatest historian of American Revolution, adds:

"You have succeeded in obtaining facts and information on a subject highly interesting. The book belongs in every American home."

The drama "When Hearts were True," is the outgrowth of the foregoing book, and in this play the real talent of actors are given occasion for expression in word and act, and under the personal direction of the efficient stage director, Mr. William J. Jossey, this gorgeously costumed and elaborately staged play must merit the heartiest approval.

The British aristocracy of 1776, Tory sympathy and Colonial self-denial are emblazoned in true and wholesome pictures.

The play represents an expenditure of \$4,700.00.



NECROLOGICAL

DR. DAVID M. C. WHITE.

Dr. David M. C. White, a pioneer Adams county, Pa., dentist, died at his home in Hampton, aged 85 years. He had practiced dentistry for sixty-five years.

DR. J. F. MENSEL.

Dr. J. F. Mensel, with offices at 1558 Wabash avenue, Chicago, died suddenly May 21 in the washrooms of the Auditorium hotel. He was lying on the floor unconscious and died a few minutes later. Dr. Mensel formerly lived at the house. Heart disease was the cause of the death. Dr. Mensel was unmarried and was 55 years old.

DR. HENRY A. DOWNING.

After months of intense suffering Dr. Henry A. Downing, dentist, at Cincinnati, O., is dead of blood poisoning. Last Christmas, while examining the mouth of a patient, he scratched his hand on a jagged tooth. The hand began to swell. The poison soon infected the whole arm. In February Dr. Downing sustained a paralytic stroke, and his mind began to fail. During the past week he was unconscious most of the time.

Dr. Downing was 68 years old and had practiced in Cincinnati for 30 years.

DR. ANSON A. STONE.

Dr. Anson A. Stone, the oldest dentist in point of service in Chautauqua county, died at his home in Fredonia, N. Y., April 13, aged 63 years. He had practiced his profession in Dunkirk and in surrounding towns since 1861. He had lived in Fredonia since 1885. He was born in Mansfield, N. Y., Feb. 13, 1842, and was educated at Ellicottville and Springville. Dr. Stone is survived by his wife, Mrs. Sarah E. (Fuhrman) Stone, and by one daughter, Mrs. Silas Crocker. He was a Royal Arch Mason and in politics a strong Republican. His death came after an illness covering nearly twelve months.

MISCELLANEOUS

AIRE CALIENTE.

The T. B. and the Tape.

"It has been found that the tape worm is antagonistic to the tubercle bacillus and that tuberculosis cannot exist in the person who has a tape worm."—*Daily Newspaper*.

You may talk of your care in the out-door camp
For them with the faulty lung,
And sing of your climate and creosote
As their praises were never sung;
You can praise to the skies and the mountain tops
The oil of the wily cod:—
The patient still suffers from t. b. c.,
And takes his six feet of sod.
And the "great white plague" still reaps them in
And we are compelled to say,
"There may be a certain and speedy cure,
But we haven't found the way."

* * *

But out of the cultured and learned East
We learn when the tape worm lies
Warmly encased in the inner man,
The tubercle germ it dies
And the lung that was once his lodging place
Is freed from his sinful toil:
And there is no need for the creosote
And none for the cod-fish oil.
So give to the poor consumptive then
A setting of tape-worm eggs,
And feed him a spoon of tape-worm links
When he for your treatment begs,
And when the old worm his battle wins—
Ah, then on him we will turn!
And feed the patient on pumpkin seed
And doses of fresh male fern!

* * *

"Oh, nothing is certain," I've heard them say,
"In a world that is cruel and crude
But taxes and death—and another thing—
And that is ingratitude!"

—G. T. P.

TO PROPERLY VULCANIZE.

Vulcanization, in order to produce the best results, should take place in *steam* only, at 320 deg. F., and not in water at the same temperature. The purer the rubber is, the greater is the necessity of keeping the flask out of the water. In rubber containing a great deal of foreign material no particular difference is noticed.—*Register*.

PYORRHOEA ALVEOLARIS.

All teeth which are loose must be fixed in their positions and bad occlusion corrected. The spring splint has given great satisfaction, swaging a piece of gold plate to the palatal and labial or the buccal and lingual surfaces, according to location, and uniting them with platinum and iridium spring wire. This, when snapped over the teeth, secures them and is easily removed for cleaning.—*Dr. Gordon White, Items of Interest*.

DIVISION OF THE PROFESSION.

The profession is divided into the enthusiast commonly called a crank, and the conservative. The enthusiast has started things moving and kept them going one way and another, shooting at long range, making us all faddists at times; hurrying us on at a rapid pace, and doing good all the time; at one time advocating one thing and at another time something else; always in earnest, believing in himself and what he says and keeping all up to a high pitch of work and endeavor. The conservative—slow, critical, sure—but just as earnest; the wheel-horse here as elsewhere.—*Dr. O. A. Hunt, Summary*.

PROPHYLAXIS.

The most important place a dentist fills in the community in which he lives is that of teacher. I believe that 80 per cent of the people—perhaps more—have no knowledge of the laws of hygiene as applied to the oral cavity, and believing this, as I do, I desire to see dentists and physicians active in informing people in regard to this important subject. No one will question the breadth of the dentist's sphere, if I am right. If 80 per cent of the American people require instruction in oral hygiene in regard to disease of the teeth, 48,000,000 are uninformed. A glance into the oral cavity of some of our patients is enough to convince us. What can we expect when they tell us, "Why, yes; I clean my teeth always once a week; sometimes twice."—*T. W. Brophy, Odontoblast*.

DEATH OF AGED COUPLE.

Seated side by side in front of a gas fire in the kitchen of their pretty home in Pittsburg, Dr. Alexander C. Elliott, formerly a practicing dentist of Poland, O., with a brilliant record from civil war days, and his wife, Mrs. Isabella Young Elliott, were found dead Feb. 8th, with smiles of a peaceful passing upon their aged faces. Death came to both in sleep and neither had stirred in their places since they first sat where they were found.

Every effort was made later by neighbors to find trace of their only child, a son, Clarence Vincent Elliott, who at one time worked for the Westinghouse Company as an electrician, and who is thought now to be doing construction work for a motor company in Indiana.

In the family Bible are papers which speak of the bravery and gallantry in action of Dr. Elliott during the civil war. About the house were many of the arms and accoutrements of a cavalryman. Dr. Elliott was a member of the G. A. R. of Poland, O., and of the Union Veteran Legion of that place, but did not join a Pittsburg post.

Dr. Elliott is said to have been born in North Sewickley, to have studied dentistry at the Western University of Pennsylvania, and to have gone to Poland, O., after the close of the war. His wife is thought to have been a native of Ohio, and from the notice of their marriage in the family Bible, at one time lived at Anchor, O. Their son, Clarence, was born on August 3, 1868. Both were members of the Beth Eden Baptist church of Allegheny.

PORCELAIN WORK.

What to have a thorough knowledge of? This is a portion of porcelain work that I am sure only a very small percentage of dentists have ever seen, and therefore have only a small idea of its immense importance. Ready-made crowns have no place in my office, except as a misfit relic, and the Richmond or any soldered crown of its kind I have considered back numbers years ago. It is not a boast, but merely a statement of facts, when I say that I can produce a variety of crowns sufficient to cover a demand for any case possible to present. A class of work which has been tested for so many years that not a shadow of doubt can be raised against its durability and its adaptability is only limited by the operator's ingenuity. They consist of various hollow crowns: Tube crowns, banded tube crowns, dowel pin crowns with band and without, section crowns, etc. This class of work leads to bridges of various kinds, movable and stationary; in fact, the man with a furnace has

the means at hand of overcoming hitherto impossible operations to such an extent that he can always be in the lead, and distance his competitor, who may choose to stay in the straight, and in this instance, very narrow path of old-time dentistry. In former years, when there was always a question mark after inlay work, I always had the consolation that it would take some loud shouting to shake my confidence in this special crown work, and now an earthquake could not do it, unless it swallowed me up, and then some of the crowns would go with me.—*Dr. W. A. Capon, Review.*

ALUMINUM IN PROSTHETIC DENTISTRY.

The special merits of aluminum—pure aluminum, be it understood—are its extraordinary lightness, its power of resistance to the oral fluids, its indifference to the action of the mucus membrane, its remarkable susceptibility of polish, easy method of working, resistance against oxidation, its superior capability of adhesion. Only the careful practitioner, however, can treat aluminum with success. Care must be taken in selecting the pure and not too soft metal, carefully removing any impurities after rolling or stamping, heating it cautiously and cooling it slowly, and having it not too thin, or it will easily bend; never below 0.7 millimeter for full and at least one millimeter thick for partial plates.—*W. Pfaff, Dental Cosmos.*

TO BAND A LOGAN CROWN.

BY DR. J. T. PHELPS, LIVINGSTON, ALA.

Trim the root down to the proper shape by grinding it a little so the ferrule will fit tight under the gum. Make ferrule and solder cap on to it. Place it on the root. Select Logan, or T. C. Crown, which I consider as good or better than the Logan, on account of the stiffness of the pin; take your carborundum wheel and cut away palatine edge of the upper end of the crown, take a thin piece of gold plate, such as is used for inlay work, stick the crown pin through it and push it back against the crown. Now take some borax wax and stick the pin through it and press it to place on the root. Take it off with the ferrule, trim away the wax first as you want the finished crown. Invest in your fire investment with just the wax exposed at the palatal portion of the crown, heat up gently by heating the porcelain first and flow solder where the wax was, and let the pin cool off first. This I consider one of the best crowns made.—*Hints.*

ANESTHESIA BY BLUE LIGHT.

Now, gentlemen, allow me to explain the process of anesthesia

which I have discovered and made a matter of experiment for three years. This is neither a general anesthesia nor a local anesthesia, obtained through the use of anesthetic substances; I produce insensibility, by the simple action of blue light upon the visual centres, bringing about, very probably, a repercussion upon the other nervous centres. Blue has indisputably an anesthetic action; all my experiments prove it. These are the results which I have obtained upon a great number of patients rendered insensible by this means, of which I have taken the observations and which my assistant, Mr. Emery, has collected, which confirm that which I state. The red, yellow, or still other lights, with the exception of green or violet light, have not given any result.

The lamp must be placed at a distance of about fifteen centimetres (six inches) from the eyes (point of convergence of the luminous rays), the head of the patient and the lamp must be covered again by a piece of linen cloth (satinette) to avoid the diffuse light of day. Three minutes suffice to permit of the extraction of the teeth without pain.—*Dr. Camille Redard, Ext., Brief.*

REMUNERATION FOR PORCELAIN WORK.

Now, with porcelain inlay work, the first question is, can they be made in about the same time as gold fillings? I think none but porcelain specialists would attempt to make any such claim. If it requires more time to make porcelain inlays than it does to make gold fillings, then it must certainly require more remuneration, and this would at once preclude it to a very great extent in the practice of the vast majority, for there are many people who cannot afford even to have gold fillings. Much more skill is required to make porcelain inlays that fulfill the claims made for them, than is required to make gold or amalgam fillings, and the man who makes only an occasional porcelain inlay must expect to consume a great deal more time in producing a reasonably perfect result than the man who is a porcelain specialist; he need not be disappointed if he has to try a second or third time, consuming possibly a whole day in making one inlay, and receiving therefor probably five dollars. The porcelain specialist would probably do the same thing in an hour, and would probably receive not less than ten dollars for it.

Now, what is to be the standard upon which the practicability of porcelain inlay work in general practice is to be judged?—*Dr. J. O. Wells, Review.*

Exciting causes are wounds, mechanical irritations, exposed pulps, and things of that nature. In many cases where no cause could be found, it is thought that a change in the bony orifices through which the nerve passes has been a cause. As to pulp nodules, there is a difference of opinion, but it would seem that the sharp corners which may be found would produce an irritation that would degenerate into neuralgia. By far the greater number of cases of dental neuralgia develop from exposed pulps in places where they are protected from injury but through gradual irritation develop into neuralgia. Such teeth are seldom sore to the touch and the practice of rapping the tooth with an instrument is not considered reliable by many physicians and dentists. The pulps are generally found to be very sensitive, abnormally so, but will later be followed by a complete state of anesthesia.—*Dr. J. G. Atterberry, Summary.*

REACTION AFTER PRESSURE ANESTHESIA.

I should not fill any root canals at the same sitting after extirpation of the pulp, especially under pressure anesthesia.

Thoroughly cleanse the root canals with dioxygen or other disinfectant, and leave a dressing of dry absorbent cotton for at least twenty-four hours to take care of any secondary hemorrhage or an accumulation of serum.

There is another source from which trouble may come, and that is infection. To guard against this contingency, extreme care ought to be exercised to see that the field of operation, solutions used, as well as instruments, are thoroughly disinfected, or, if need be, sterilized, before each operation. On account of the extreme pressure used, some of the cocain solution is apt to be forced into the apical region. If there be any septic matter at the point of application, or in the tooth tissues, it will certainly be carried with the anesthetic into the apical space and there set up an active inflammation.

It will be well to call to your mind that we are dealing with tissues whose environment is such as to allow scarcely any room for expansion. So in case of hyperemia or active inflammation, the symptoms are always marked and the prognosis in many cases unfavorable. The old saying that "an ounce of prevention is worth a pound of cure," applies here with more force than in any other part of our work.—*Dr. E. T. Loemer, Extract, Era.*

Personal and General

Fire—Fire at Clarion, Iowa, damaged the office of Dr. Littlefield to the extent of \$300; fully insured.

Robbed—The office of G. B. Bleiler, a dentist at Allentown, Pa., was entered by thieves with skeleton key and quantity of gold stolen, May 14.

Chandler-Byrne—Dr. Chas. F. Chandler, a dentist at Wauwatosa, and Miss Florence Byrne were married at the latter place.

Michener-Shook—Dr. H. P. Michener, dentist at Chesterville, O., and Miss Effie Shook were united in marriage Sunday, May 28.

Fire—Dr. Daniel W. Williamson, dentist, offices at No. 121 West 21st street, Ridgewood, N. J., on March 6. Loss, \$10,000; fully insured.

Smith-Minott—Dr. Harry Montfort Smith, a dentist at Lyndonville, Vt., and Miss Ella Pearl Minott, of the same place, were married April 18th.

Rockfellow-Wilucki—Dr. J. A. Rockfellow of Chicago and Miss Amanda Wilucki of Morrison, Ill., were married at Nashville, Ill., June 5th. They will reside in Chicago.

Pioneer Retires—Dr. V. N. Page, one of the oldest practicing dentists in Urbana, Ill., has sold his practice and good will and has retired from business.

Robbed—Thieves entered the office of Dr. F. C. Banta, 526 Altman building, May 23, and stole two dental bridges and a quantity of gold. The loss is estimated at \$125.

Appointed on Board—Dr. E. H. Ball, of Tama, Iowa, was appointed member of State Board by Gov. Cummins, to succeed Dr. F. A. Lewis, resigned.

Fire—Dr. S. E. Whitmore, at Marshall, Minn., suffered a loss of \$500 through fire which destroyed the large two-story building in which he was located.

Fire in St. Louis—Fire, which originated in a waste paper basket, May 15, damaged the office of Dr. W. H. Plumpe, a dentist at 3003 Olive street, to the extent of \$100 on fixtures and \$50 to the building.

ROBBED.

Dr. Fred Hieden, at Wauwatosa, Wis., suffered a loss of about \$40 worth of dental instruments from his office on May 2, the work of a sneak thief presumably.

Professor Resigns—Dean W. P. Dickinson of the Minnesota University dental school, has handed in his resignation, to take effect with the close of school. Dean Dickinson has been connected with the university for 14 years. He will practice his profession.

The "Gold Eye"—The "gold eye," recognized throughout this country as an ailment peculiar to dentists, is increasing. It is a form of eye strain incidental to the work of constantly plugging cavities in teeth with gold leaf and fine particles of gold. After a year or two of such work dentists are obliged to wear glasses.—New York Sun.

Ten Dollars for a Tooth—Judgment has been rendered by Mr. Justice Curran in an interesting case of Miss Marie Gordon vs. Dr. A. S. Brosseau, dentist, at Montreal, Can.

This was a claim for \$150 damages, the plaintiff alleging that, having gone to defendant to get a tooth extracted, he, by mistake, took out the wrong one, thus depriving her of a good tooth, which, in the case of a young lady, is a matter of considerable importance.

The defendant pleaded that he had simply carried out the plaintiff's instructions, and pulled the tooth indicated, the patient possibly deceiving herself in locating the seat of the pain, which often occurs in case of dentistry. Besides, he had offered to replace the tooth in its sockets, but Miss Gordon refused. The court rendered judgment in favor of plaintiff for \$10, with costs of a Circuit Court action for that amount.

Died in Dental Chair—J. Thomas Hayes, aged 32 years, of Lovettsville, Va., died suddenly May 25 in a dentist's chair in Frederick, where he went to have a number of teeth extracted. He secured the services of a physician, who administered chloroform, as he said he would be unable to stand the pain. The physician states that he examined Mr. Hayes and found no reason why he could not take the anaesthetic. He found that he stood it until the sixteenth tooth was drawn, when the pulse ceased and the heart grew very weak. Nitroglycerin and other restoratives were administered without effect and he expired. His remains were taken to an undertaking establishment and prepared for burial. He was unmarried. His people have been apprised of his sudden death.

Suicide—Dr. E. G. Renyolds, the West Newfield, Maine, dentist, committed suicide by hanging to a tree near his home. The Doctor had been suffering from a nervous attack for three months. He is survived by a widow and a daughter. His age was 51. The daughter, Miss Catherine, is at Denver, Col., for her health.

Beggar (at dentist's door)—Say, mister, could you fill my teeth this mornin'?

Dentist—Gold or silver?

Beggar—Roast beef would do, boss; roast beef would do.

Fined for Illegal Practice—Thomas H. Robinson and S. Lear Addison, of Dayton, O., charged with practicing dentistry without a state certificate or license, changed their pleas of not guilty to guilty in police court and were each fined \$50 and costs. H. C. Brown of Columbus, member of the state board of dental examiners, was prosecuting witness. Both men admitted that they had never passed the state examination.

Judge Sullivan said he considered the offense a grave one. Practice of dentistry by men not thoroughly skillful or possessing insufficient professional knowledge, was dangerous, he declared, to the health and lives of

the citizens of Ohio. He did not pass sentence of imprisonment against the accused because both were of good character and had never been prosecuted before.

The Cutler Mountain Victim Identified—Mrs. Meda Kempter, wife of Richard Kempter, of Syracuse, N. Y., has identified the body of a woman found on Cutler mountain as that of her daughter, Bessie Bouton, and has started with the body for New York. The identification was made complete by the dental work on the teeth and by a scar on the right side of the left forefinger, as well as by the hair. The mother charged that Milton Franklin Andrews attempted to kill the girl with poison while on the Pacific coast. The body of Bessie Bouton was found on Cutler mountain, south of Colorado Springs, on December 17, 1904. The woman had been shot in the head and every article of her clothing removed. The body had been placed face downward and gasoline had been poured over the corpse and fired, destroying the face, except the dental work.

Clinic for Women—The group of seven women physicians and dentists, who are practicing successfully in New Orleans, have undertaken the philanthropic venture of a free medical and dental clinic for women and children. A house has been rented in the neighborhood of Felicity and Annunciation streets, which is being made ready for occupation by June 1, when it is expected to open it with a public reception.

Like all physicians, these young women have been called upon for a great deal of charity work, and being women, they are especially susceptible to tales of poverty and suffering. Being women, too, they know how difficult it is for a hardworking housekeeper, and the mother of little children, to leave her home to go any distance for medical treatment. They have, therefore, resolved to locate their clinic in a thickly populated portion of the city, where the homes of the poor predominate, and open it to women and children.

The plans for the clinic are not quite mature as yet. It will begin on a very small scale, in a house of three rooms. There will be a matron in charge, and one physician there at all hours of the day to answer charity calls. The women physicians will constitute the visiting staff. A consulting staff will be chosen from their brothers in the medical profession.

The physicians who are interested in this undertaking are Dr. Sara T. Mayo, Dr. Susanna Otis, Dr. Elizabeth Bass, Dr. Cora Bass, Dr. Clara Glenk, Dr. Clothilde C. Jauquet and Dr. Fassy (dentist).

There will be a public reception, June 1, in the headquarters of the clinic. The Orleans Parish Medical Society and other friends who are interested in this enterprise, will be invited.

It is possible that this small beginning may develop later on into a woman's hospital. There is a field for such an institution in New Orleans, and it has been successful in other cities. The women who have undertaken this clinic will appreciate any donations toward its equipment, though they do not intend to beg for them.—Exchange.

Can Dislocate Any Joint—A most interesting clinic was witnessed at Dr. King's office, Manistee, Mich., May 29, by a dozen doctors, dentists and undertakers. Charles Hilliard of Philadelphia demonstrated all manner of dislocations. Mr. Hilliard possesses the remarkable ability of dislocating

any of the joints of his limbs at will, and then voluntarily returning them to place. He has spent 25 years demonstrating dislocations for medical colleges and the profession, and has given demonstrations in every country in the world saving only Asia.

Although now 64 years of age, Hilliard performs many wonderful feats. Some of the dislocations demonstrated are rarely met with, and the clinic is therefore very instructive to medical men.

In one instance he dislocated the thigh, knee and ankle on one side at one time, and then folded the limb so that the ankle was against his waist. He dislocated his arms in a number of different ways and demonstrated the correct manner of reducing in every instance.

A singular coincidence was the appearance at the clinic of Joseph Mau of Manistee street, whose left arm is dislocated. The accident occurred at the Detroit House of Correction, where Mau was sent last fall for the larceny of cement from the paving company. The shoulder had been dislocated four months.

Hilliard examined the man and then dislocated his own shoulder in the identical manner. He readily reduced his own dislocation, but said that Mau probably could not be relieved because of his age, and the fact that so much time has elapsed since the injury.

Charles Hilliard's father followed the same line of work, and his own son also demonstrates dislocations for a living.

MAMMY'S PAINLESS DENTIST.

"Ever since we came to New York," says a Virginia woman, "our old mammy has been enduring tortures with toothache. Time and again I've tried to get her to go down and have the tooth out, but till last week I never could persuade her that New York dentists aren't 'night doctors.' You know down home the colored people all believe that doctors roam about after dark trying to catch people to cut up. You can scare a pickaninny by saying, 'Night doctor,' when nothing else will bother him a bit. Well, at last mammy consented to go with a daughter of hers to one of these painless artists

"'Did it hurt?' I asked, when she came home.

"'Lan' no, chile,' she said. 'I suttingly am glad I went to him. He taken an' hooked them tongs onto my tooth, an' he says:

"'Good thing you didn't go to Dr. Jones, downstairs. This is the way he pulls teeth."

"Then he give a powerful yank at my jaw, an' I let's out a screech.

"'Unhuh," he says, "I reckon you better be glad you ain't a-got. Doc Jones a-workin' on you jaw. An' Doc Smith ain't no better. This is the way he pulls teeth."

"With that he shows me how Doc Smith would a-done me, and I lets out another screech.

"'An' now," he says, "I'm a-going to 'monstrate my own method of subtraction."

"'An' he gives that tooth just a little twis', easy as can be, an' out it comes. Never hurt a bit. My land, chile, I suttingly am glad I didn't go to none of them other doctors.'"

REMOVALS.

Dr. R. R. Gaumer from Ottumwa, Ia., to Prairie City, Ill.; Dr. John M. Eveleth from Sloan, Ia., to Sioux City, Ia. Dr. S. E. Osborn from Kansas City to Jamesport, Mo. Drs. W. H. and Jessie R. DeFord from Jefferson, Ia., to Des Moines, Ia. Dr. M. M. Bull from Des Moines, Ia., to Jefferson, Ia. Dr. W. F. Baker from Lebanon, Pa., to Harrisburg, Pa. Dr. R. G. McKenzie from Detroit, Mich., to Port Huron, Mich. Dr. Geo. Bell from Catlettsburg, Ky., to Ashland, Ky. Dr. B. F. Fahrney from Oregon, Ill., to La Salle, Ill. Dr. Gallagher from Sheldon, Ia., to Ashton, Ia. Dr. G. W. Clark from Des Moines, Ia., to Webster City, Ia. Dr. W. H. Crandall from Chicago, Ill., to Lena, Ill. Dr. J. E. Taylor from Oregon, Mo., to Manhattan, Kan. Dr. M. L. Pank from Chicago, Ill., to Bloomington, Ill. Dr. H. Peebles from Kansas City, Mo., to Carthage, Mo. Dr. Perry H. Plummer from Huron, S. D., to Rockford, Ill. Dr. Harry E. Pier from Milwaukee, Wis., to Richland Center, Wis. Dr. Frank Edwards from Kansas City, Mo., to Mt. Pleasant, Ia. Dr. W. H. Berry from Rochelle, Ill., to Belvidere, Ill. Mr. M. Joseph Briscoe from Chicago to Chillicothe, Ill. Dr. W. R. Steffens from Trenton, Ill., to Freeburg, Ill. Dr. Gates from Des Moines, Ia., to Humboldt, Ia. Dr. E. E. Wilson from Sterling, Ill., to Peru, Ill. Dr. H. A. Rathbun from Farmer City to Marquette, Kan. Dr. G. A. Mills from Stanford, Ill., to Jacksonville, Ill. Dr. P. L. Day from Geneva, Ind., to Hillsdale, Mich. Dr. Reque from Portland, N. D., to Aneta, N. D. Dr. Lee Bigger from Preston, Ia., to Danbury, Ia. Dr. W. H. Pittwood from Spokane, Wash., to Seattle, Wash. Dr. H. H. Porter from Woodstock, Ill., to Springfield, Ill. Dr. L. A. Bacon from Aurora, Ill., to Chicago, Ill. Dr. C. A. Bowen from Chicago, Ill., to Mattoon, Ill. Dr. G. Brown from Macon, Mo., to Carrollton, Mo. Dr. K. G. George from Macon, Mo., to Carrollton, Mo. Dr. Fred Godfrey from Hillsdale, Mich., to Quincy, Mich. Dr. Mulkey from Harley, Idaho, to Soldier, Idaho. Dr. E. B. Strange from Walshville, Ill., to Tower Hill, Ill. Dr. J. B. Murray from Griswold, Ia., to Dubuque, Ia. Dr. E. M. Conway from Brookston, Ind., to Sheridan, Ind. Dr. Catherine Miller from Iowa City, Ia., to Boone, Ia. Dr. Schwenker from Omaha, Neb., to West Point, Neb. Dr. J. A. Schwind from Taylorville to Vandalia, Ill. Dr. E. T. Hull from Ft. Atkinson, Wis., to Hood River, Oregon. Dr. G. A. Barnett from Louisville, Ky., to Joplin, Mo. Dr. Halsey Sayres from Adrian, Mich., to Onsted, Mich. Dr. Eugene Hall from Piqua, Ohio, to Columbus, Ohio. Dr. F. A. Miles from Brooklyn, Wis., to Bellville, Wis.

PATENTS

787,584. Dental Furnace. Arthur E. Matteson, Chicago, Ill. Filed Sept. 19, 1904. Serial No. 225,040. See Fig. 1.

Claim.—1. In a dental furnace, a muffle provided upon its surface with a plurality of projecting holding members and adapted to have wound thereupon from one to the other a heat-conductor for said furnace.

2. In a dental furnace, a muffle provided with a plurality of lugs distributed over the surface thereof and adapted to have attached thereto a heat-conductor passed from one lug to another over the surface of said muffle, for the purpose described.

3. In a dental furnace, a muffle provided on its exterior surface with a plurality of undercut lugs distributed over said surface and adapted to have an electric current conductor attached thereto, and a conductor passing from one lug to another over the surface of said muffle, substantially as and for the purpose described.

787,826. Dental Flask. George L. Bruce, Baltimore, Md., assignor to Ferdinand Groshans, Baltimore, Md. Filed Dec. 21, 1904. Serial No. 237,745.

See Fig. 2.

Claim.—1. A dental flask comprising one or more receptacle sections and each section having laterally projecting side flanges for the reception of a lifting tool.

2. A dental flask having a laterally projecting side flange provided with a perforation, and a cover plate having a perforated lug projecting therefrom, said perforated side flange and perforated lug serving for the engagement of a lifting tool.

787,350. Shaft Attachment for Dental Motors. William B. Alford and Edwin P. Alford, Sumter, S. C. Filed June 17, 1904. Serial No. 213,021.

See Fig. 3.

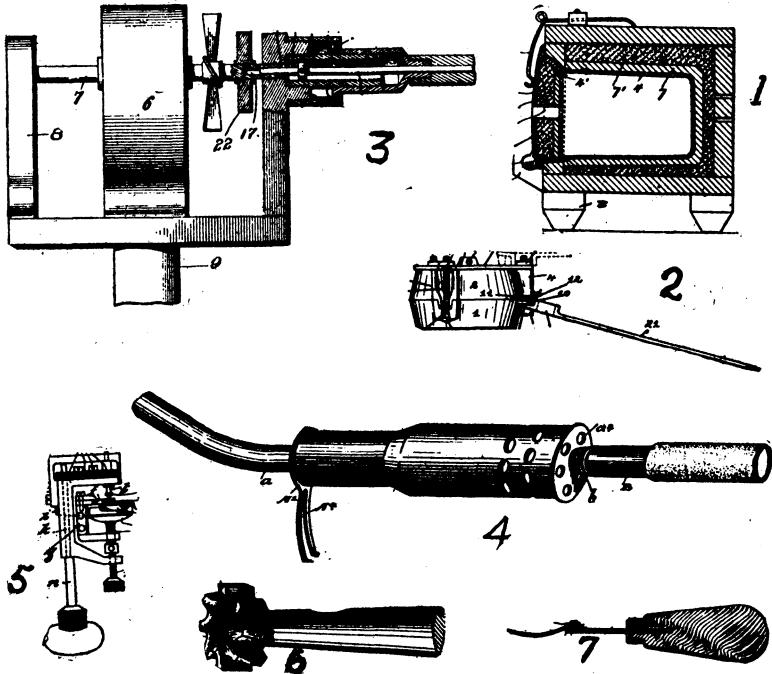
Claim.—1. The combination with a driving shaft and a support therefor, of a tube projecting from the support, a flexible shaft having a covering, and a sleeve at the end of the covering, slidable on said tube, to connect or disconnect the shafts.

2. The combination with a driving shaft and a support therefor, of a driven flexible shaft engageable with said shaft and having a covering, a tube secured to the support and into which the end of the flexible shaft extends, and a sleeve connecting the covering and the tube and slidable on the latter to connect or disconnect the shafts.

785,904. Waxing-up Tool for Dental Trial Plates. Andrew May, St. Catharines, Canada. Filed Aug. 15, 1904. Serial No. 220,849. See Fig. 4.

Claim.—1. In a waxing-up tool for dental trial plates, the combination with the casing having a reduced tubular extension at one end curved upwardly and the perforations at the opposite end and in the periphery of the casing near such end, of a nozzle fitting into the interior of the casing and provided with an internal orifice at the inner end as specified.

2. In a waxing-up tool for dental trial plates, the combination with the casing having a reduced tubular extension at one end curved upwardly and the perforations at the opposite end and in the periphery of the casing near such end, of a nozzle fitting into the interior of the casing and provided with an internal orifice at the inner end and the legs secured to the head of the casing extending laterally therefrom and curved downward and rearwardly as specified.



785,788. Dental Tool. Raimund Zentner. Wiesbaden, Germany, Filed Oct. 26, 1903. Serial No. 178,555. See Fig. 5.

Claim.—1. In a dental tool for attaching teeth to a backing, the combination of a screw-clamp for pressing the tooth against the backing, one shank of said clamp being provided with holes for taking up the pins fixed to the teeth, a U-shaped frame, a riveting stud journaled in one shank of said frame, means for rotating said riveting stud and a screw situated in the other shank of the frame opposite to the riveting stud, substantially as described and for the purpose set forth.

788,906. Excavating bur for dentists. Willy Homann, Dusseldorf, Germany. Filed Oct. 15, 1903. Serial No. 177,126. See Fig. 6.

Claim.—A dental bur having teeth with oblique facets to form acute cut-

ting edges and obtuse backs, concave furrows between the teeth and radial cutting edges on the face of the bur that extend from its center to the cutting edges of the teeth, substantially as specified.

788,909. Dental Scraper. James W. Ivory, Philadelphia, Pa. Filed Sept. 24, 1904. Serial No. 225,743. See Fig. 7.

Claim.—1. In a tool of the character stated, a blade and a shank carrying the same, said blade having a lip extending angularly from the heel end of said blade and said shank having a recess adapted to receive said lip and means for tightening said blade on said shank.

2. In a tool of the character stated, a blade, a shank carrying the same, said blade and shank having registering openings, and a screw in said openings, said blade having an angularly extending lip on the heel end thereof and said shank having a recess adapted to receive said lip.

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